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8/15/95

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     (FILE 'HOME' ENTERED AT 08:40:00 ON 19 DEC 2001)

     FILE 'HCAPLUS' ENTERED AT 08:40:15 ON 19 DEC 2001
L1           626 S MONTGOMERY R?/AU
L2             9 S L1 AND DENTAL?
L3             4 S L2 AND ?MICROB?
                 SELECT RN L3 1-4

     FILE 'REGISTRY' ENTERED AT 08:41:40 ON 19 DEC 2001
L4            70 S E1-70

     FILE 'HCAPLUS' ENTERED AT 08:41:56 ON 19 DEC 2001
L5             4 S L3 AND L4

     FILE 'REGISTRY' ENTERED AT 08:47:07 ON 19 DEC 2001
L6             1 S L4 AND "CHLORHEXIDINE DIACETATE"
L7             1 S L4 AND "CHLORHEXIDINE DIGLUCONATE"
L8             1 S L4 AND "CETYLPYRIDINIUM CHLORIDE"
L9             1 S L4 AND "DOMIPHEN BROMIDE"
L10            1 S L4 AND "BENZETHONIUM CHLORIDE"
                 E ALEXIDENE/CN
L11            6 S E4-10
                 E BENZALKONIUM CHLORIDE
                 E BENZALKONIUM/CN
L12            1 S E5
L13            1 S E4
L14           13 S L6-13

     FILE 'HCAPLUS' ENTERED AT 08:58:39 ON 19 DEC 2001

     FILE 'REGISTRY' ENTERED AT 08:58:50 ON 19 DEC 2001
                 SET SMARTSELECT ON
L15           SEL L14 1- CHEM :     196 TERMS
                 SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 08:58:53 ON 19 DEC 2001
L16        14422 S L15
                 E PROTEIN(L)THU/CT
                 E PROTEIN/CT
                 E PROTEINS/CT
                 E E6+ALL/CT
L17        11167 S E3
L18         1125 S L17(L)THU/RL
L19            1 S L16 (L)L18
L20           17 S L16 AND L18
L21       228422 S CHEW OR BISCUIT OR TREAT OR RAWHIDE OR FEED
L22            1 S L21 AND L20
L23            0 S L22 NOT L5
L24          683 S L16(L)PROTEIN?
L25           14 S L24 AND L21
L26          912 S L16 AND PROTEIN?
L27           16 S L26 AND L21
L28           16 S L27 OR L25
L29           15 S L28 NOT L5

     FILE 'REGISTRY' ENTERED AT 09:08:52 ON 19 DEC 2001
L30            1 S ACETIC ACID/CN
                 E ACETATE/CN
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inventor search

4 cites w/ 70 compounds displayed

all L14 cpds are displayed w/ Reg # (claim 4)

14,422 cites for L14 cpds

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L31             1 S SODIUM ACETATE/CN
L32             1 S POTASSIUM ACETATE/CN
L33             2 S GLUCONIC ACID/CN
L34             1 S SODIUM GLUCONATE/CN
L35             1 S POTASSIUM GLUCONATE/CN
L36             1 S HYDROBROMIC ACID/CN
L37             1 S HYDROCHLORIC ACID/CN
L38             1 S SODIUM BROMIDE/CN
L39             1 S SODIUM CHLORIDE/CN
L40             1 S POTASSIUM CHLORIDE/CN
L41             1 S POTASSIUM BROMIDE/CN
L42            13 S L30-41
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all acids & salts of Claim 3

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     FILE 'HCAPLUS' ENTERED AT 09:14:02 ON 19 DEC 2001
L43        249942 S L42
L44             1 S L43 AND L29
L45            14 S L29 NOT L44
L46           129 S L26 AND (ANIMAL OR CAT OR DOG OR FELINE OR CANINE)
L47            14 S L46 AND L43
L48            13 S L47 NOT (L5 OR L28 OR L44-45)
L49             5 S L48 AND (DENTAL? OR ORAL? OR TOOTH? OR TEETH OR PLAQUE)
L50             8 S L48 NOT L49
L51           150 S L16 AND L21
L52             6 S L51 AND ( CAT OR DOG OR FELINE OR CANINE)
L53             0 S L43 AND L52
L54          7108 S ?DENTIFRIC?
L55           392 S L16 AND L54
L56            26 S L43 AND L55
L57             2 S L56 AND (L21 OR FOOD)

     FILE 'USPATFULL' ENTERED AT 09:29:59 ON 19 DEC 2001

     FILE 'MEDLINE, USPATFULL' ENTERED AT 09:30:22 ON 19 DEC 2001
L58          1531 S L14
L59           328 S L58 AND PROTEIN?
L60        699167 S CHEW OR BISCUIT OR RAWHIDE OR FEED OR FOOD
L61            95 S L59 AND L60
L62         70645 S L42
L63            10 S L61 AND L62
L64            10 DUP REM L63 (0 DUPLICATES REMOVED)
L65             8 S L64 AND GRANTED/FS
L66            33 S L61 AND (DENTAL? OR GINGIV? OR DENTRIF? OR TOOTH? OR TEETH OR
L67            11 S L66 AND ( CAT OR DOG OR FELINE OR CANINE)
L68             8 S L67 NOT L64
L69             8 DUP REM L68 (0 DUPLICATES REMOVED)

     FILE 'AGRICOLA' ENTERED AT 09:49:33 ON 19 DEC 2001
L70           122 S L14
L71        225865 S CHEW OR BISCUIT OR RAWHIDE OR FEED OR FOOD
L72            31 S L70 AND L71
L73         10932 S L42
L74             0 S L72 AND L73
L75             2 S L72 AND PROTEIN?
L76             5 S L70 AND L73
L77             8 S L70 AND PROTEIN?
L78            29 S L72 NOT L75-77
L79             1 S L78 AND (CAT OR DOG OR CANINE OR FELINE)
L80             0 S L78 AND (DENTAL? OR DENTRIF? OR TEETH OR PLAQUE OR GINGIV?)
```

1 cite (claims ~~3 & 4~~ 3 & 4 & 1)

14 cites (claims 1 & 4)

15 cites

8 cites

6 cites

2 cites

8 patents

8 patents

claim 4 - 122 cpds

cl 3 - 10932 cpds

none of these are relevant

1 cite

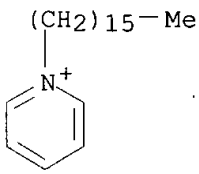
=> d ibib abs hitstr l44

L44 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:445667 HCAPLUS
DOCUMENT NUMBER: 115:45667
TITLE: Reagent and method for homogenizing sputum sample in pathogenic bacteria detection by culture method
INVENTOR(S): Sugiyama, Ikuo
PATENT ASSIGNEE(S): Senju Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02273197	A2	19901107	JP 1989-95894	19890414

AB A reagent contg. e.g. **protein**-degrading enzyme, polysaccharide-degrading enzyme and NaCl is used in homogenization of sputum for detecting pathogenic bacteria, esp. acid-resistant bacteria by culture methods. Urea and/or guanidine salts, and hydrosulfohydryl compds., or **cetylpyridinium chloride** (**CPC**) may also be used. The utilization of NaCl shortens the time to homogenize sputum sample, and **CPC** addn. inhibits Pseudomonas and other undesired microorganisms. Thus, a reagent contg. urea, Na2SO3, NaHSO3, **proteinase** (from microorganisms), diastase, NaCl, and **CPC** was prepd. and used to **treat** sputum sample from patients with tuberculosis for 4-8 h. This treatment resulted in a 7-day earlier Bacillus tuberculosis colony appearance then conventional method when cultured in 1% Ogawa medium.

IT **123-03-5, Cetylpyridinium chloride**
RL: ANST (Analytical study)
(sputum homogenization with, for inhibition of undesired microorganisms in Bacillus tuberuculosis detection with culture method)
RN 123-03-5 HCAPLUS
CN Pyridinium, 1-hexadecyl-, chloride (8CI, 9CI) (CA INDEX NAME)



● Cl⁻

IT **7647-14-5**, Sodium chloride, biological studies
RL: BIOL (Biological study)
(sputum homogenization with, for Bacillus tuberculosis detection by culture method)
RN 7647-14-5 HCAPLUS
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl—Na

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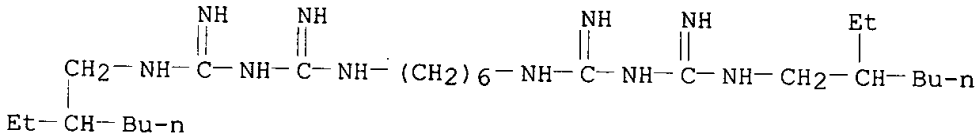
L14 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2001 ACS
RN 22573-93-9 REGISTRY
CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(2-ethylhexyl)-3,12-diimino- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Biguanide, 1,1'-hexamethylenebis[5-(2-ethylhexyl)- (8CI)
OTHER NAMES:
CN 1,6-Bis(2-ethylhexylbiguanido)hexane
CN **Alexidine**
CN Bisguadine
CN QR 711
CN Sterwin 904
CN Win 21904
FS 3D CONCORD
DR 25795-30-6, 22782-69-0
MF C26 H56 N10
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, TOXCENTER, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

59 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
59 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> d 6

L14 ANSWER 6 OF 13 REGISTRY COPYRIGHT 2001 ACS
RN **18472-51-0** REGISTRY
CN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(4-chlorophenyl)-3,12-diimino-, di-D-gluconate (9CI)
CN Biguanide, 1,1'-hexamethylenebis[5-(p-chlorophenyl)-, di-D-gluconate (8CI)
CN D-Gluconic acid, compd. with 1,1'-hexamethylenebis[5-(p-chlorophenyl)biguanide] (2:1) (6CI)
CN Gluconic acid, compd. with 1,1'-hexamethylenebis[5-(p-chlorophenyl)biguanide] (2:1), D- (8CI)
OTHER NAMES:
CN 1,1'-Hexamethylenebis[5-(p-chlorophenyl)biguanide] digluconate
CN 1,6-Bis(4-chlorophenyldiguanino)hexane digluconate
CN 1,6-Bis(p-chlorophenyldiguanido)hexane digluconate
CN 1,6-Bis[N5-(p-chlorophenyl)biguanido]hexane digluconate
CN **4-Chlorhexidine digluconate**
CN Abacil
CN Arlacide G
CN Bis(p-chlorophenyl)diguanidohexane digluconate
CN Chlorhexidine bigluconate
CN Chlorhexidine di-D-gluconate
CN **Chlorhexidine digluconate**
CN Chlorhexidine gluconate
CN Corsodyl
CN Disteryl
CN Hexidine
CN Hibiscrub
CN Hibisol
CN Hibitane
CN Hibitane 5
CN Manusan
CN Maskin
CN Maskin R
CN Peridex
CN Peridex (antiseptic)
CN Septeal
CN SY 1007
FS STEREOSEARCH
DR 12068-31-4, 14007-07-9, 124973-71-3, 60042-57-1, 60404-86-6, 21293-24-3, 23289-58-9, 105791-72-8, 51365-13-0, 150621-85-5, 151498-43-0, 82432-16-4, 40330-16-3, 52196-45-9, 52387-19-6, 227749-99-7, 230296-52-3
MF C22 H30 C12 N10 . 2 C6 H12 O7
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS*, TOXCENTER, TOXLIT, TULSA, USAN, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

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CRN 526-95-4

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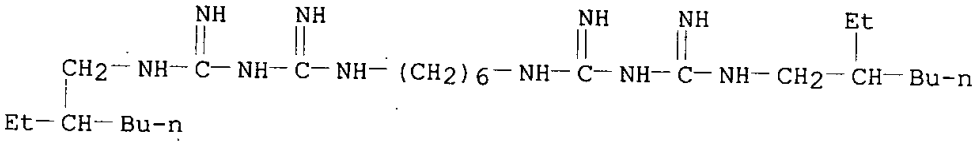
L14 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2001 ACS
RN 22573-93-9 REGISTRY
CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(2-ethylhexyl)-3,12-diimino- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Biguanide, 1,1'-hexamethylenebis[5-(2-ethylhexyl)- (8CI)
OTHER NAMES:
CN 1,6-Bis(2-ethylhexylbiguanido)hexane
CN **Alexidine**
CN Bisguadine
CN QR 711
CN Sterwin 904
CN Win 21904
FS 3D CONCORD
DR 25795-30-6, 22782-69-0
MF C26 H56 N10
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, TOXCENTER, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

59 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
59 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> d 6

L14 ANSWER 6 OF 13 REGISTRY COPYRIGHT 2001 ACS
RN **18472-51-0** REGISTRY
CN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(4-chlorophenyl)-3,12-diimino-, di-D-gluconate (9CI)
CN Biguanide, 1,1'-hexamethylenebis[5-(p-chlorophenyl)-, di-D-gluconate (8CI)
CN D-Gluconic acid, compd. with 1,1'-hexamethylenebis[5-(p-chlorophenyl)biguanide] (2:1) (6CI)
CN Gluconic acid, compd. with 1,1'-hexamethylenebis[5-(p-chlorophenyl)biguanide] (2:1), D- (8CI)
OTHER NAMES:
CN 1,1'-Hexamethylenebis[5-(p-chlorophenyl)biguanide] digluconate
CN 1,6-Bis(4-chlorophenyldiguanino)hexane digluconate
CN 1,6-Bis(p-chlorophenyldiguanido)hexane digluconate
CN 1,6-Bis[N5-(p-chlorophenyl)biguanido]hexane digluconate
CN **4-Chlorhexidine digluconate**
CN Abacil
CN Arlacide G
CN Bis(p-chlorophenyl)diguanidohexane digluconate
CN Chlorhexidine bigluconate
CN Chlorhexidine di-D-gluconate
CN **Chlorhexidine digluconate**
CN Chlorhexidine gluconate
CN Corsodyl
CN Disteryl
CN Hexidine
CN Hibiscrub
CN Hibisol
CN Hibitane
CN Hibitane 5
CN Manusan
CN Maskin
CN Maskin R
CN Peridex
CN Peridex (antiseptic)
CN Septeal
CN SY 1007
FS STEREOSEARCH
DR 12068-31-4, 14007-07-9, 124973-71-3, 60042-57-1, 60404-86-6, 21293-24-3, 23289-58-9, 105791-72-8, 51365-13-0, 150621-85-5, 151498-43-0, 82432-16-4, 40330-16-3, 52196-45-9, 52387-19-6, 227749-99-7, 230296-52-3
MF C22 H30 C12 N10 . 2 C6 H12 O7
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS*, TOXCENTER, TOXLIT, TULSA, USAN, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

CRN 526-95-4

Inventor search

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L5 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:314489 HCAPLUS
DOCUMENT NUMBER: 132:326095
TITLE: **Antimicrobial** compositions that protect skin and **dental** tissue
INVENTOR(S): Nathoo, Salim A.; **Montgomery, R. Eric**
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

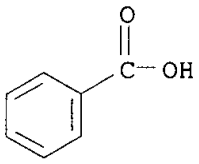
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000025697	A1	20000511	WO 1999-US26073	19991104
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1126792	A1	20010829	EP 1999-961586	19991104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1998-107026 P 19981104
WO 1999-US26073 W 19991104

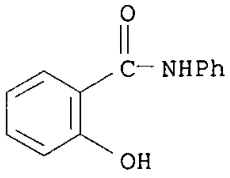
AB Disclosed are compns. contg. at least one **antimicrobial** agent and at least one volatile solvent. The compns. are applied to biol. substrates such as skin, keratinous tissue (e.g., finger nails and toenails) and **dental** tissue (e.g., teeth and surrounding soft tissue). A residue of the **antimicrobial** agent is left on the substrate, inhibiting **microbial** growth for a given period of time. The compns. are particularly useful in the course of **dental** procedures. In these embodiments, they are applied to teeth that have been drilled or otherwise prepd. to receive a **dental** restorative compn. such as a filling or crown, or a **dental** prosthetic device. An **antimicrobial dental** primer and adhesive compn. contained triclosan 0.2, acetone 79.91, urethane dimethacrylate 10, methacryloyloxyethyl maleate 5, triethylene glycol dimethacrylate 5, camphorquinone 0.25, and 4-Et dimethylaminobenzoate 0.6 %.

IT **65-85-0D**, Benzoic acid, esters **87-17-2D**, Salicylanilide, halogenated derivs. **3380-34-5**, Triclosan
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**antimicrobial** compns. for protection of skin and **dental** tissue)

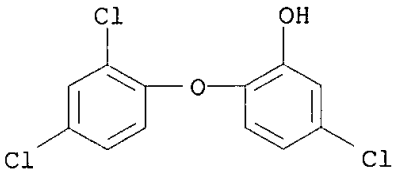
RN 65-85-0 HCAPLUS
CN Benzoic acid (7CI, 8CI, 9CI) (CA INDEX NAME)



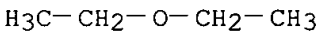
RN 87-17-2 HCAPLUS
CN Benzamide, 2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)



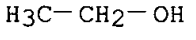
RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



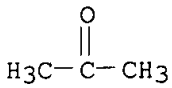
IT **60-29-7**, Diethyl ether, biological studies **64-17-5**, Ethanol, biological studies **67-64-1**, Acetone, biological studies **123-38-6**, Propionaldehyde, biological studies **141-78-6**, Ethyl acetate, biological studies **2530-85-0**
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as volatile solvent; **antimicrobial** compns. for protection of skin and **dental** tissue)
RN 60-29-7 HCAPLUS
CN Ethane, 1,1'-oxybis- (9CI) (CA INDEX NAME)



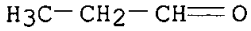
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



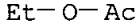
RN 67-64-1 HCAPLUS
CN 2-Propanone (9CI) (CA INDEX NAME)



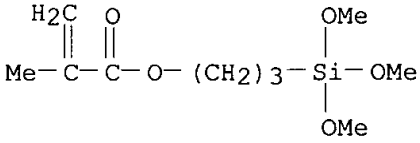
RN 123-38-6 HCAPLUS
CN Propanal (9CI) (CA INDEX NAME)



RN 141-78-6 HCAPLUS
CN Acetic acid ethyl ester (8CI, 9CI) (CA INDEX NAME)



RN 2530-85-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5
REFERENCE(S):
(1) Mitra; US 5866630 A 1999 HCAPLUS
(2) Mitra; US 5876208 A 1999
(3) Mitra; US 5888491 A 1999 HCAPLUS
(4) Rozzi; US 5607663 A 1997 HCAPLUS
(5) Rozzi; US 5662887 A 1997 HCAPLUS

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L5 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:549130 HCAPLUS
DOCUMENT NUMBER: 131:161675
TITLE: Curable compositions with **antimicrobial** properties
INVENTOR(S): **Montgomery, R. Eric**; Nathoo, Salim A.
PATENT ASSIGNEE(S): Oraceutical, LLC, USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

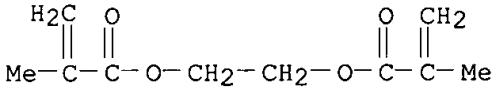
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942080	A2	19990826	WO 1999-US3651	19990219
WO 9942080	A3	19991007		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9933038	A1	19990906	AU 1999-33038	19990219
EP 1056430	A2	20001206	EP 1999-934240	19990219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6281265	B1	20010828	US 1999-255450	19990219

PRIORITY APPLN. INFO.:		
US 1998-75176	P	19980219
US 1998-75246	P	19980219
US 1998-94823	P	19980731
WO 1999-US3651	W	19990219

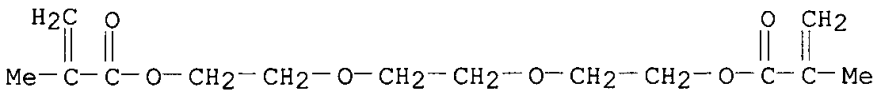
AB Novel curable compns. are disclosed which include a water insol. **antimicrobial** agent. The curable compns. are useful in inhibiting the growth of bacteria on the surface of the curable compn., within the curable compns. and in a vol. adjacent to the curable compn. Herculite XRV restorative material was modified to include triclosan. The **antimicrobial** activity of triclosan was demonstrated after release into bacteria media.

IT **97-90-5**, Ethylene glycol dimethacrylate **109-16-0**, Triethylene glycol dimethacrylate **2082-81-7 2358-84-1 3290-92-4**, Trimethylolpropane trimethacrylate **6606-59-3**, 1,6-Hexanediol dimethacrylate **25852-47-5**, Polyethylene glycol dimethacrylate **72829-09-5**, 1,12-Dodecanediol dimethacrylate
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(crosslinking agent; curable **dental** compns. with **antimicrobial** properties)

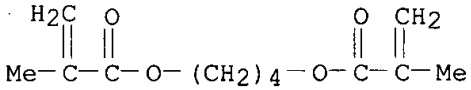
RN 97-90-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



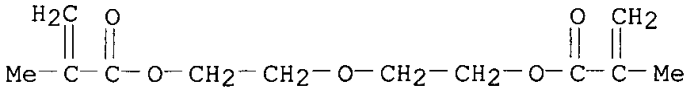
RN 109-16-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester (9CI) (CA INDEX NAME)



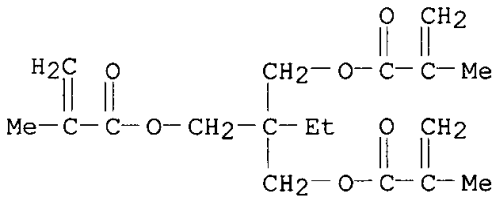
RN 2082-81-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (9CI) (CA INDEX NAME)



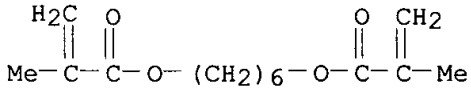
RN 2358-84-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 3290-92-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (9CI) (CA INDEX NAME)

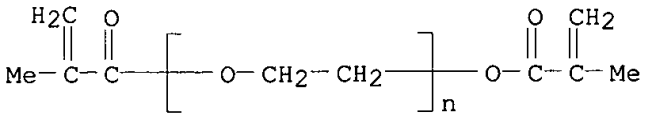


RN 6606-59-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester (9CI) (CA INDEX NAME)

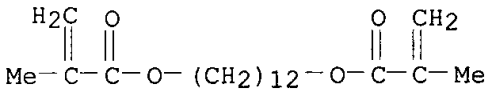


RN 25852-47-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-[(2-

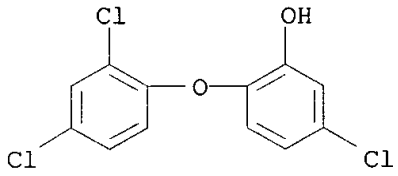
methyl-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)



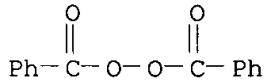
RN 72829-09-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,12-dodecanediyl ester (9CI) (CA INDEX NAME)



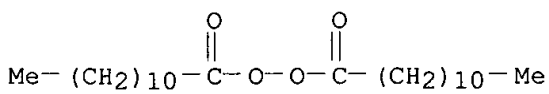
IT **3380-34-5**
RL: BAC (Biological activity or effector, except adverse); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(curable **dental** compns. with **antimicrobial** properties)
RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IT **94-36-0**, Benzoyl peroxide, biological studies **105-74-8**, Lauroyl peroxide
RL: CAT (Catalyst use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(curable **dental** compns. with **antimicrobial** properties)
RN 94-36-0 HCAPLUS
CN Peroxide, dibenzoyl (9CI) (CA INDEX NAME)



RN 105-74-8 HCAPLUS
CN Peroxide, bis(1-oxododecyl) (9CI) (CA INDEX NAME)



IT **1306-06-5**, Hydroxyapatite **1344-28-1**, Aluminum oxide (Al2O3), biological studies **7631-86-9**, Silica, biological studies **13463-67-7**, Titania, biological studies **14808-60-7**, Quartz, biological studies
RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(curable **dental** compns. with **antimicrobial** properties)

RN 1306-06-5 HCAPLUS
CN Hydroxylapatite (Ca5(OH)(PO4)3) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 1344-28-1 HCAPLUS
CN Aluminum oxide (Al2O3) (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 7631-86-9 HCAPLUS
CN Silica (7CI, 8CI, 9CI) (CA INDEX NAME)

O=Si=O

RN 13463-67-7 HCAPLUS
CN Titanium oxide (TiO2) (8CI, 9CI) (CA INDEX NAME)

O=Ti=O

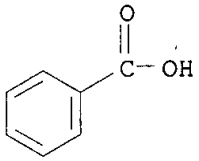
RN 14808-60-7 HCAPLUS
CN Quartz (SiO2) (9CI) (CA INDEX NAME)

O=Si=O

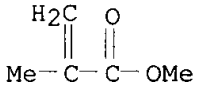
IT **65-85-0D**, Benzoic acid, esters **80-62-6 87-17-2D**, Salicylanilide, halo derivs. **97-63-2**, Ethyl methacrylate **97-86-9**, Isobutyl methacrylate **97-88-1**, Butyl methacrylate **101-84-8D**, Diphenyl ether, halo derivs. **102-07-8D**, Carbanilide, halo derivs. **108-95-2D**, Phenol, derivs. **868-77-9 1565-94-2**, Bis-GMA **2210-28-8**, Propyl methacrylate **2455-24-5**, Tetrahydrofurfuryl methacrylate **4655-34-9**, Isopropyl methacrylate **5888-33-5 7534-94-3**, Isobornyl methacrylate **9002-84-0 9002-88-4**, Polyethylene **9003-01-4**, Poly(acrylic acid) **9003-07-0**, Polypropylene **9003-20-7**, Polyvinyl acetate **9003-39-8**, Pvp **9003-42-3**, Poly(ethyl methacrylate) **9003-63-8**, Poly(butyl methacrylate) **9011-14-7**, Poly(methyl methacrylate) **9011-16-9**, Maleic anhydridemethyl vinyl ether copolymer **20166-49-8 25087-26-7**, Poly(methacrylic acid) **25685-29-4**, Ethyl methacrylatemethyl

methacrylate copolymer **25736-86-1**, Polyethylene glycol monomethacrylate **27813-02-1**, Hydroxypropyl methacrylate **29721-79-7**, Hydroxybutyl methacrylate **41637-38-1**, Ethoxylated bisphenol A dimethacrylate **45103-58-0**, Methoxyethoxyethyl methacrylate **45127-97-7**, 2-Propenoic acid, 2-methyl-, 2-(2-ethoxyethoxy)ethyl ester **72869-86-4**, Urethane dimethacrylate
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(curable **dental** compns. with **antimicrobial** properties)

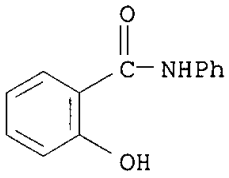
RN 65-85-0 HCAPLUS
CN Benzoic acid (7CI, 8CI, 9CI) (CA INDEX NAME)



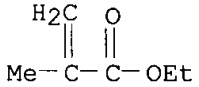
RN 80-62-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester (9CI) (CA INDEX NAME)



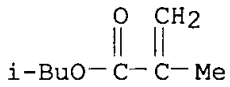
RN 87-17-2 HCAPLUS
CN Benzamide, 2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)



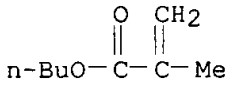
RN 97-63-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ethyl ester (9CI) (CA INDEX NAME)



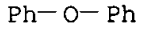
RN 97-86-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



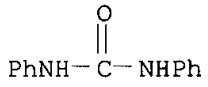
RN 97-88-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester (9CI) (CA INDEX NAME)



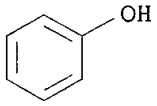
RN 101-84-8 HCAPLUS
CN Benzene, 1,1'-oxybis- (9CI) (CA INDEX NAME)



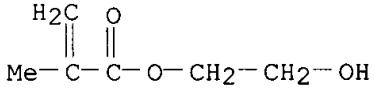
RN 102-07-8 HCAPLUS
CN Urea, N,N'-diphenyl- (9CI) (CA INDEX NAME)



RN 108-95-2 HCAPLUS
CN Phenol (8CI, 9CI) (CA INDEX NAME)

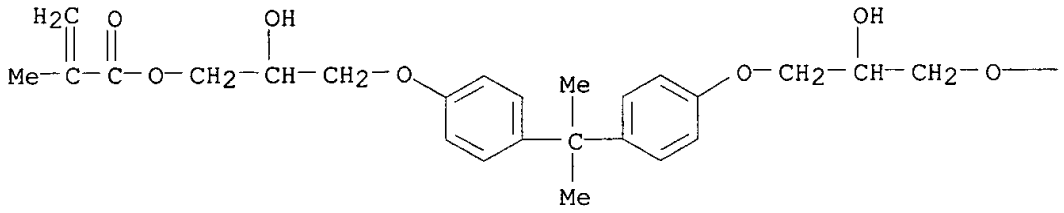


RN 868-77-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester (9CI) (CA INDEX NAME)

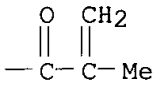


RN 1565-94-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

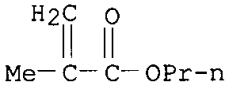
PAGE 1-A



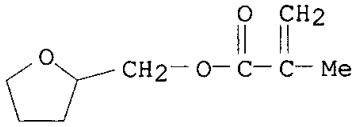
PAGE 1-B



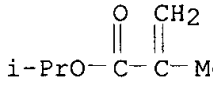
RN 2210-28-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, propyl ester (9CI) (CA INDEX NAME)



RN 2455-24-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (tetrahydro-2-furanyl)methyl ester (9CI) (CA INDEX NAME)

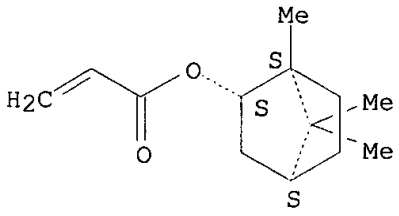


RN 4655-34-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)



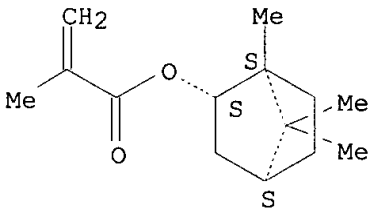
RN 5888-33-5 HCAPLUS
CN 2-Propenoic acid, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 7534-94-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel- (9CI) (CA INDEX NAME)

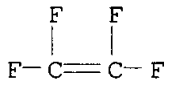
Relative stereochemistry.



RN 9002-84-0 HCAPLUS
CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 116-14-3
CMF C2 F4



RN 9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

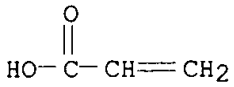
CM 1

CRN 74-85-1
CMF C2 H4

RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

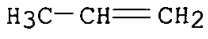
CRN 79-10-7
CMF C3 H4 O2



RN 9003-07-0 HCAPLUS
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

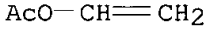
CRN 115-07-1
CMF C3 H6



RN 9003-20-7 HCAPLUS
CN Acetic acid ethenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

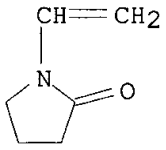
CRN 108-05-4
CMF C4 H6 O2



RN 9003-39-8 HCAPLUS
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

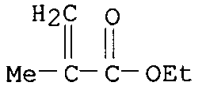
CRN 88-12-0
CMF C6 H9 N O



RN 9003-42-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

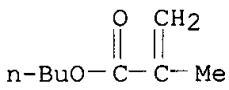
CRN 97-63-2
CMF C6 H10 O2



RN 9003-63-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

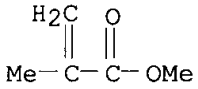
CRN 97-88-1
CMF C8 H14 O2



RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

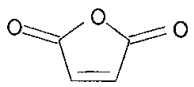
CRN 80-62-6
CMF C5 H8 O2



RN 9011-16-9 HCAPLUS
CN 2,5-Furandione, polymer with methoxyethene (9CI) (CA INDEX NAME)

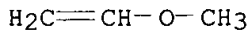
CM 1

CRN 108-31-6
CMF C4 H2 O3

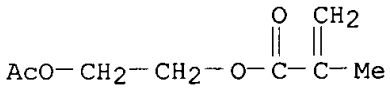


CM 2

CRN 107-25-5
CMF C3 H6 O



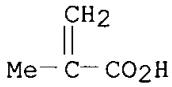
RN 20166-49-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(acetyloxy)ethyl ester (9CI) (CA INDEX NAME)



RN 25087-26-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

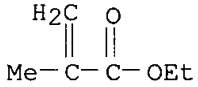
CRN 79-41-4
CMF C4 H6 O2



RN 25685-29-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

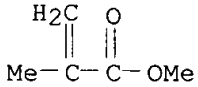
CM 1

CRN 97-63-2
CMF C6 H10 O2

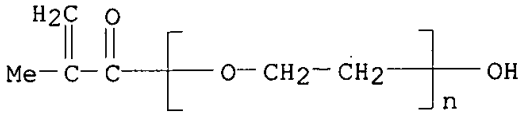


CM 2

CRN 80-62-6
CMF C5 H8 O2



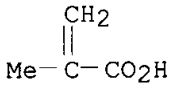
RN 25736-86-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 27813-02-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (9CI) (CA INDEX NAME)

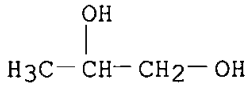
CM 1

CRN 79-41-4
CMF C4 H6 O2

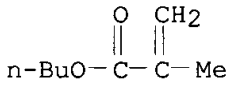


CM 2

CRN 57-55-6
CMF C3 H8 O2

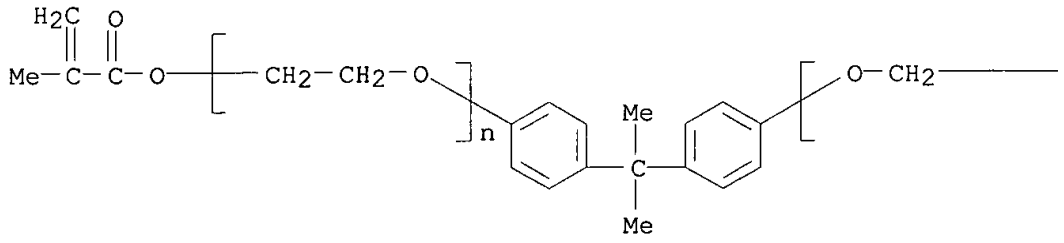


RN 29721-79-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, hydroxybutyl ester (9CI) (CA INDEX NAME)

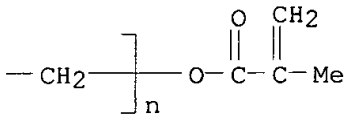


RN 41637-38-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]- (9CI) (CA INDEX NAME)

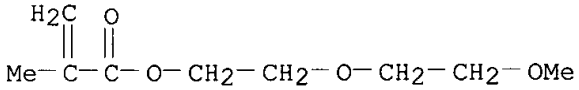
PAGE 1-A



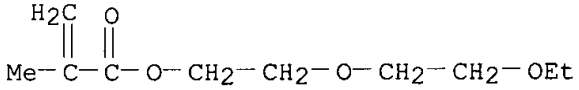
PAGE 1-B



RN 45103-58-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(2-methoxyethoxy)ethyl ester (9CI) (CA INDEX NAME)

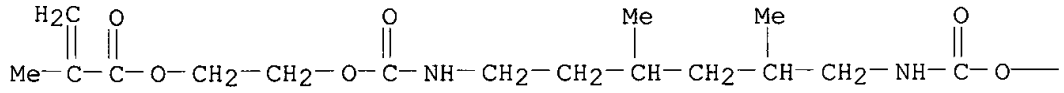


RN 45127-97-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(2-ethoxyethoxy)ethyl ester (9CI) (CA INDEX NAME)

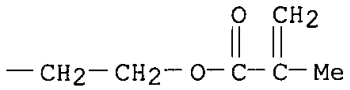


RN 72869-86-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



D1—Me



=> d ibib abs hitstr 3

L5 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:549129 HCAPLUS
DOCUMENT NUMBER: 131:161674
TITLE: **Antimicrobial** denture adhesive composition
INVENTOR(S): **Montgomery, R. Eric**; Wolf, Robert O.
PATENT ASSIGNEE(S): Oraceutical, LLC, USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

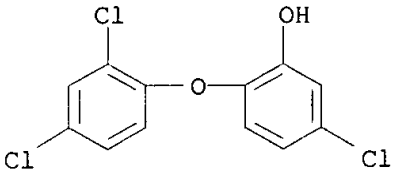
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942079	A2	19990826	WO 1999-US3588	19990219
WO 9942079	A3	19991014		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9927744	A1	19990906	AU 1999-27744	19990219
EP 1056429	A2	20001206	EP 1999-908266	19990219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6281265	B1	20010828	US 1999-255450	19990219

PRIORITY APPLN. INFO.:		
US 1998-75176	P	19980219
US 1998-75246	P	19980219
US 1998-94823	P	19980731
WO 1999-US3588	W	19990219

AB Novel curable compns. are disclosed which include a water insol. **antimicrobial** agent. The curable compns. are useful in inhibiting the growth of bacteria on the surface of the curable compn., within the curable compns. and in a vol. adjacent to the curable compn. Com. available permanent restorative Herculite XRV was modified to include water-insol. triclosan. Triclosan was release into surrounding media in sufficiently high concs. to inhibit growth of Streptococcus mutans and Pseudomonas aeruginosa.

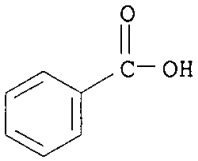
IT **3380-34-5**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**antimicrobial** denture adhesive compn.)

RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)

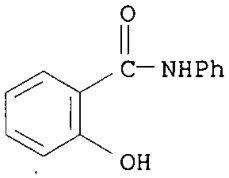


IT **65-85-0D**, Benzoic acid, esters **87-17-2D**, Salicylanilide, halo derivs. **101-84-8D**, Diphenyl ether, halo derivs. **102-07-8D**, Carbanilide, halo derivs. **108-95-2D**, Phenol, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**antimicrobial** denture adhesive compn.)

RN 65-85-0 HCAPLUS
CN Benzoic acid (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 87-17-2 HCAPLUS
CN Benzamide, 2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)



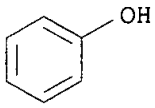
RN 101-84-8 HCAPLUS
CN Benzene, 1,1'-oxybis- (9CI) (CA INDEX NAME)

Ph—O—Ph

RN 102-07-8 HCAPLUS
CN Urea, N,N'-diphenyl- (9CI) (CA INDEX NAME)

PhNH—C(=O)—NHPh

RN 108-95-2 HCAPLUS
CN Phenol (8CI, 9CI) (CA INDEX NAME)


OH

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L5 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:244361 HCAPLUS
DOCUMENT NUMBER: 126:224532
TITLE: Improved proteinaceous animal chew with **dentally** therapeutic cation
INVENTOR(S): **Montgomery, Robert Eric**
PATENT ASSIGNEE(S): Montgomery, Robert, Eric, USA
SOURCE: PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

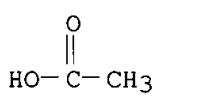
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9706696	A1	19970227	WO 1996-US13236	19960815
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
AU 9667752	A1	19970312	AU 1996-67752	19960815
US 6074662	A	20000613	US 1996-698475	19960815

PRIORITY APPLN. INFO.: US 1995-2345 P 19950815
WO 1996-US13236 W 19960815

AB This invention relates to chewable objects for animals which contain, as a **dentally** therapeutic ingredient, one or more cationic substances. The inventive therapeutic animal chews are of sufficient durability to allow for a chewing cycle long enough for the release of the aforementioned cationic substances into saliva. Furthermore, the inventive animal chews may contain an effective amt. of a counter-ionic compd., such as an alkali metal salt, to allow for rapid solubilization of the cationic **antimicrobial** substance into the saliva of an animal chewing thereupon, esp. when delivered or carried on a carrier having a neg. charged surface.

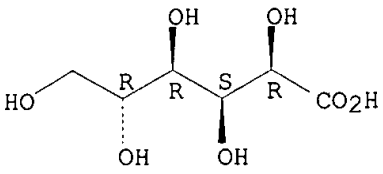
IT **64-19-7D**, Acetic acid, sodium and potassium salts
526-95-4D, Gluconic acid, sodium and potassium salts
527-07-1, Sodium gluconate **7647-01-0D**, Hydrochloric acid, sodium and potassium salts **10035-10-6D**, Hydrobromic acid, sodium and potassium salts
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(improved proteinaceous animal chew with **dentally** therapeutic cation)

RN 64-19-7 HCAPLUS
CN Acetic acid (7CI, 8CI, 9CI) (CA INDEX NAME)



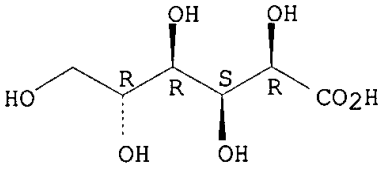
RN 526-95-4 HCAPLUS
CN D-Gluconic acid (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 527-07-1 HCAPLUS
CN D-Gluconic acid, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Na

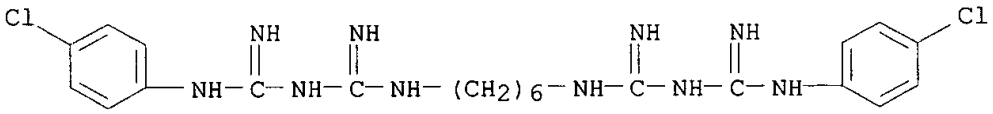
RN 7647-01-0 HCAPLUS
CN Hydrochloric acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

HCl

RN 10035-10-6 HCAPLUS
CN Hydrobromic acid (8CI, 9CI) (CA INDEX NAME)

HBr

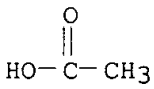
IT **55-56-1**, Chlorhexidine **56-95-1**, Chlorhexidine diacetate **121-54-0**, Benzethonium chloride **123-03-5** **538-71-6**, Domiphen bromide **18472-51-0**, Chlorhexidine digluconate **22573-93-9**, Alexidine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improved proteinaceous animal chew with **dentally** therapeutic cation)
RN 55-56-1 HCAPLUS
CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(4-chlorophenyl)-3,12-diimino- (9CI) (CA INDEX NAME)



RN 56-95-1 HCAPLUS
CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(4-chlorophenyl)-3,12-diimino-, diacetate (9CI) (CA INDEX NAME)

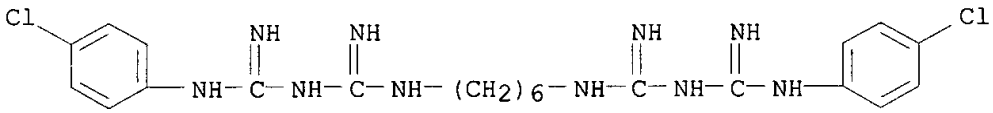
CM 1

CRN 64-19-7
CMF C2 H4 O2

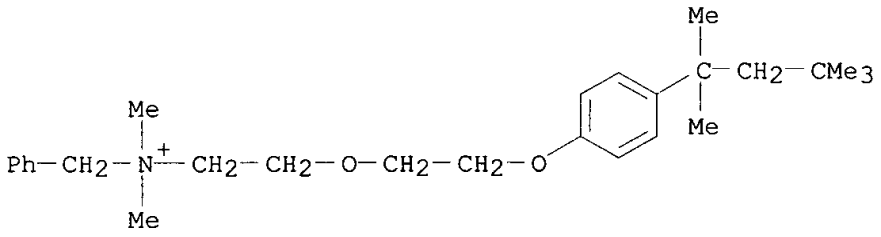


CM 2

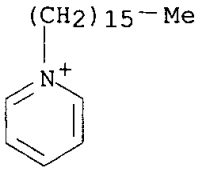
CRN 55-56-1
CMF C22 H30 Cl2 N10



RN 121-54-0 HCAPLUS
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]-, chloride (9CI) (CA INDEX NAME)

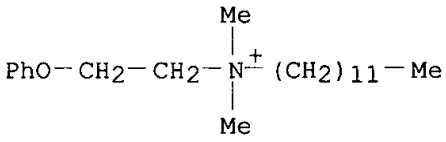


RN 123-03-5 HCAPLUS
CN Pyridinium, 1-hexadecyl-, chloride (8CI, 9CI) (CA INDEX NAME)



● Cl^-

RN 538-71-6 HCAPLUS
CN 1-Dodecanaminium, N,N-dimethyl-N-(2-phenoxyethyl)-, bromide (9CI) (CA INDEX NAME)



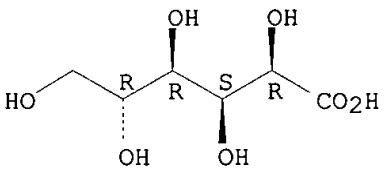
● Br^-

RN 18472-51-0 HCAPLUS
CN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1) (9CI) (CA INDEX NAME)

CM 1

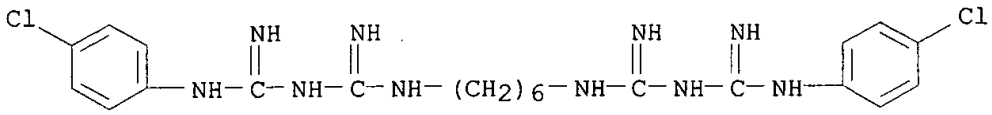
CRN 526-95-4
CMF C6 H12 O7
CDES 5:D-GLUCO

Absolute stereochemistry.

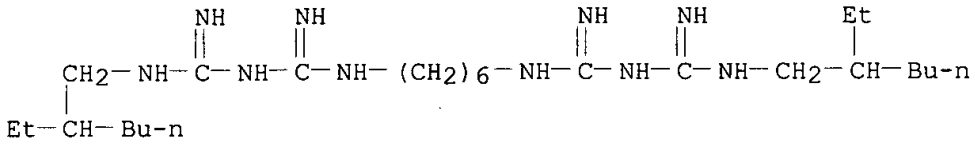


CM 2

CRN 55-56-1
CMF C22 H30 Cl2 N10



RN 22573-93-9 HCAPLUS
CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(2-ethylhexyl)-3,12-diimino- (9CI) (CA INDEX NAME)



=> d ibib abs hitstr 1

L69 ANSWER 1 OF 8 USPATFULL

ACCESSION NUMBER:	1999:120862 USPATFULL
TITLE:	Methods, compositions, and **dental** delivery systems for the protection of the surfaces of **teeth**
INVENTOR(S):	Homola, Andrew M., Morgan Hill, CA, United States Dunton, Ronald K., Santa Cruz, CA, United States
PATENT ASSIGNEE(S):	Four Star Partners, Scotts Valley, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5961958		19991005
APPLICATION INFO.:	US 1996-683778		19960716 (8)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Achutamurthy, Ponnathapura
ASSISTANT EXAMINER:	Ponnalun, P.
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
NUMBER OF CLAIMS:	89
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT:	2010

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

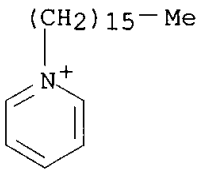
AB The present invention discloses compositions containing a transfer agent and/or bactericidal compounds, and hydrophobic materials which form, upon application to **dental** surfaces, adhesive, protective and bacteria-inhibiting barriers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **123-03-5**, Cetylpyridinium chloride
(oral hygienic compns. contg. bactericides and protective barrier-forming agents)

RN 123-03-5 USPATFULL

CN Pyridinium, 1-hexadecyl-, chloride (8CI, 9CI) (CA INDEX NAME)



● Cl⁻

=> d kwic

L69 ANSWER 1 OF 8 USPATFULL

TI Methods, compositions, and **dental** delivery systems for the protection of the surfaces of **teeth**

AB The present invention discloses compositions containing a transfer agent

and/or bactericidal compounds, and hydrophobic materials which form, upon application to **dental** surfaces, adhesive, protective and bacteria-inhibiting barriers.

SUMM The present invention relates to oral hygiene and specifically to methods of treating the oral cavity with a **dental** delivery systems such as **toothpaste**, masticables including chewing gums, **dental** floss or **toothpicks**, with improved cleaning, conditioning and antimicrobial properties, which provide the **teeth** with an impervious protective barrier. The present invention also relates to compositions and **dental** delivery systems having improved cleaning, conditioning, and antimicrobial properties, which provide the **teeth** with an impervious protective barrier. The present invention also relates to compositions and delivery systems useful for sealing and blocking. . . sensitivity. The present invention also relates to novel cationic surfactants especially suited for use in the present compositions, methods, and **dental** delivery systems.

SUMM . . . communities have looked for many years for a way to interdict the attachment, propagation, growth or colonization of bacteria on **teeth** since adhered bacteria are the start of a pernicious chain of events leading to formation of home care-resistant **plaque**, calculus, and ultimately, **tooth**-loss. As people in developed countries live longer, **dental** care plays a larger role in overall health, and developing countries are becoming more aware of the importance of oral. . .

SUMM **Dental plaque** results when cariogenic bacteria (e.g., Streptococcus mutans) collect in colonies and form deposits on **tooth** surfaces. The presence of the bacteria and deposits is extremely detrimental to the health of the **tooth** for, if left unchecked, they may result in infected **gingival** tissue, the formation of **dental** caries and possibly periodontal disease. In extreme cases their presence may even result in the loss of **teeth**. Many attempts have been made to control or prevent both the occurrence of **dental** caries and the formation of **dental plaque**. For example, fluoride solutions or gels have been used. Treatment with these materials is typically performed in a **dental** office at periodic, but not frequent, intervals. Such treatments are primarily intended to render **tooth** enamel more resistant to the acid action caused by **plaque**. They do not, however, result in **plaque** control for an extended period since **plaque** reestablishes itself on the **teeth** shortly after ingestion of **food**.

SUMM . . . the course of a year have demonstrated that this technique had only limited success due to the rapid reestablishment of **plaque** in the oral cavity. Moreover, the daily application of a fluoride gel by means of a custom-fitted polyvinyl mouthpiece for a period of twenty-one months also showed no substantial change in **plaque** formation among treated and untreated patients (see "Clinical Anticaries Effect of A Repeated Sodium Fluoride Application by Mouthpiece," Journal of the American **Dental** Association, vol. 75, Sep. 3, 1967, pages 638-644).

SUMM For long years the **dental** research community has sought to develop a way of sealing the **teeth** against access to **dental** surfaces by bacteria, acids and other deleterious materials. Good sealants have been developed and are now available, but they require professional application involving thorough cleaning and drying of each **tooth** prior to application of the sealant and the cost and availability of qualified professionals has meant that the benefits of. . .

SUMM Proper use of **dental** floss is necessary to clean the

considerable area on the interproximal surfaces of **teeth**, which cannot be reached by the bristles of a **toothbrush**.

SUMM The purpose of using **dental** floss is:

SUMM 1. to dislodge and remove any decomposing **food** material that has accumulated at the interproximal surfaces that cannot be removed by brushing; and

SUMM 2. to dislodge and remove as much as possible the growth of bacterial material (**plaque**) upon the **teeth** or the superimposed calculus that has accumulated there since the previous cleaning.

SUMM The concept of the use of **dental** floss for cleansing interproximal spaces appears to have been introduced by Parmly in 1819 ("Practical Guide to the Management of the **Teeth**," Collins & Croft, Philadelphia Pa.). Parmly suggested the use of waxed silk to clean **teeth** of persons subject to **gingival** inflammation. Numerous types of floss were developed and used for cleaning, until finally in 1948 Bass established the optimum characteristics of **dental** floss (**Dental** Items of Interest, vol. 70, pp. 921-34, (1948)). Most floss sold at retail today is also "waxed" to assist penetration. . . to interproximal regions; as the "cord" effect described by Bass makes the floss bundle difficult to force between closely spaced **teeth**.

SUMM From 1960 through 1962, numerous clinical studies reported that there is no clinical difference as to **plaque** removal and **gingivitis** scores between waxed and unwaxed **dental** floss. O'Leary in 1970, and Hill et al. in 1973, found no difference in the interproximal cleansing properties of waxed or unwaxed **dental** floss. This was reconfirmed in 1982 by Lobene et al. (Clinical Preventative Dentistry, Jan.-Feb. (1982)) who showed no significant clinical difference on **plaque** and **gingivitis** scores. Similar results. i.e., no clinical difference between waxed and unwaxed floss with respect to reduced **gingival** inflammation were shown by Finkelstein in 1979 (J. Dent. Res., vol. 58, pp. 1034-1039 (1979)). No differences in **gingival** health were shown by Wunderlich in 1981 (J. Dent. Res., vol. 60A, p. 862 (1981)). No differences in **plaque** removal were reported by Schmidt et al. in 1962 (J. Dent. Res. (1962)) with flosses of various types. Stevens in 1980, studied floss with variable diameters and showed no difference in **plaque** and **gingival** health. Carter et al., Va Dent. J., vol. 52, pp. 18-27 (1975), studied professional and self-administered waxed and unwaxed floss and found that both significantly reduced **gingival** bleeding of interproximal and **gingival** sulci. Unwaxed floss appeared slightly, but not significantly more effective.

SUMM In view of this clinical work, it is not surprising that most of the **dental** floss sold today is bonded and/or waxed. The "bonding" in the yarn industry today is used more to facilitate processing. . .

SUMM In any event, most people in the world do not floss their **teeth** . Instead, sticks or **toothpicks** are often used to clean their **teeth**.

SUMM Maetani et al, U.S. Pat. No. 2,504,228, describe a metallic **dental** casting coated with a PTFE coating. The PTFE coating is applied from a solution. The PTFE may also be applied. . .

SUMM Blass in U.S. Pat. No. 4,996,056 describes coating a **dental** floss or tape with a mixture of wax and PTFE powder.

SUMM La Rochelle in U.S. Pat. No. 4,157,386 discloses a lozenge which coats the surfaces of the **teeth** and which contains fluoride ion, a polishing agent, and a vegetable oil.

SUMM . . . a polishing agent, and a solubilizing agent. The antibacterial enhancing agent is an anionic film-forming material thought to attach to **tooth** surfaces thereby preventing bacterial attachment and

enhancing delivery of the antibacterial agent to **tooth** surfaces.

SUMM . . . antimicrobial substance. Upon consumption of the capsule, the hydrophilic substance is believed to fix the hydrophobic active substance to the **teeth**.

SUMM Hill et al in U.S. Pat. No. 5,165,913 discloses **dental** floss which contains a surfactant, silicone and a chemotherapeutic agent. The chemotherapeutic agent is delivered upon splaying of the floss. The surfactant and the silicone are believed to coat the **teeth**, provide a smooth feeling to the user, and prevent the attachment of bacteria.

SUMM . . . that efficacy, if any, is of exceedingly short duration. Thus, there remains a great need for improved methods, compositions and **dental** delivery systems which are effective for the prevention of bacterial adhesion to **teeth**, exhibit antimicrobial properties and can be applied by traditional or acceptable means by the consumer as well as the professional to **teeth** which need not be dry or particularly clean.

SUMM A significant portion of the human population experiences pain or discomfort due to sensitivity of the **teeth** to heat, cold or pressure. Many products promise or provide short term relief but more lasting benefits have been elusive.. . .

SUMM Accordingly, it is one object of the present invention to provide novel **dental** delivery systems which exhibit improved antimicrobial properties.

SUMM It is another object of the present invention to provide novel **toothpastes** which exhibit improved protective, antimicrobial and anti-sensitivity properties.

SUMM It is another object of the present invention to provide novel **dental** floss which exhibits improved protective, antimicrobial and anti-sensitivity properties.

SUMM It is another object of the present invention to provide novel **toothpicks** which exhibit improved protective, antimicrobial and anti-sensitivity properties.

SUMM It is another object of the present invention to provide a method for treating **teeth** which confers improved protection, microbial resistance and anti-sensitivity benefits on the **teeth**.

SUMM It is another object of the present invention to provide a method for treating **teeth** which confers protection, microbial resistance and anti-sensitivity benefits on the **teeth**.

SUMM It is another object of the present invention to provide a method for treating **teeth** which results in a reduced ability of bacteria to adhere to **teeth**.

SUMM . . . another object of the present invention to provide novel compositions which confer improved protection, microbial resistance and anti-sensitivity benefits on **teeth**.

SUMM . . . another object of the present invention to provide novel compositions which confer prolonged protection, microbial resistance and anti-sensitivity benefits on **teeth**.

SUMM . . . object of the present invention to provide novel compositions which result in a reduced ability of bacteria to adhere to **teeth** .

SUMM It is another object of the present invention to provide novel cationic surfactants useful in such methods, compositions, and **dental** delivery systems.

SUMM It is another object of the present invention to treat/coat **dental** surfaces with an enduring, inert, continuous, hydrophobic material which will constitute a physical barrier against access to the **tooth** surface by bacteria, acids, **food** remnants, etc., and prevent loss of fluorine by elution from **dental** surfaces.

SUMM It is another object of the present invention to provide such barriers, for deposition onto **dental** surfaces, which include materials which enhance the purposes of oral hygiene such as sources of fluoride, substances which are shown. . .

SUMM (b) 75 to 99.75 wt. %, based on the total weight to (a) and (b), of a barrier material to **teeth** results in a prolonged reduction in the ability of bacteria to adhere to **teeth**.

SUMM Thus, the present invention provides new compositions which bond to substrates, especially to those **dental** (**tooth**) surfaces having pits, fissures, depressions, cracks, **dental** tubules, interstices or irregularities. The compositions conform to the topography of the surfaces of the **teeth**, depositing protective barrier materials on the surfaces of the **teeth**.

SUMM The methods of this invention result in the bonding of waxy materials to substrates, such as **teeth**. The application of the present compositions to **dental** floss or **dental** tape, according to the methods of the present invention, provides an appropriate combination of bonding to the floss or tape together with transferability of the compositions onto and into the surfaces of the **teeth** during use of the floss or tape.

SUMM . . . present invention also relates to a composition and method which is useful for relieving pain and discomfort associated with hypersensitive **teeth**. More particularly, the invention relates to the use of an inert, hydrophobic and strongly adhering barrier film capable of isolating sensitive dentin and dentinal tubules from mechanical, thermal, chemical, and osmotic stimuli. When the surface of the **tooth** is damaged or eroded, the dentinal tubules, which lead from the pulp to the surface of the dentin, provide a. . .

SUMM . . . agents such as the salts of strontium and potassium and other water-soluble compounds known to be effective in treatment of **dental** hypersensitivity. Specifically, the present invention contemplates the addition to the formulations in all delivery systems, including **toothpastes**, chewing gums, **dental** flosses and tapes, **dental** sticks, **toothpicks**, etc., of water-insoluble porous, inorganic or polymeric beads preferably from within the size range of 1 micron to 100 microns. . .

SUMM The compositions of the present invention may be applied to **dental** surfaces using **toothbrushes**, both manual and automated, having either "natural", nylon, or other fibrous, multifilament or monofilament bristles. The methodology employed for applying the barrier materials and duplex films to the bristles may be as described below as used for application to **dental** flosses and tapes, or may be applied by application of the compositions of the present invention directly to the brush from a tube or other container as is done with conventional **toothpastes**.

SUMM In one embodiment, the compositions of the present invention are applied to **dental** surfaces by a chewable delivery system comprising a transfer agent and barrier material, both incorporated into a chewing gum base.. . .

SUMM . . . section on "Active-Agents". During masticating, the substances incorporated in the gum base are released from the gum and deposited onto **dental** surfaces providing a physical barrier against access to the **tooth** surface by bacteria, acids and other deleterious substances.

SUMM In another embodiment of the present invention the compositions of the present invention are applied to **dental** surfaces by a chewable delivery system comprising `transfer`, `active` agents and `barrier` materials incorporated into pores of microporous plastics or. . .

SUMM The compositions of the present invention may also be applied to **dental** surfaces using any of a variety of interdental or

dental appliances of wood, plastic, metals, etc. A stick-like appliance may be covered at one or both ends with any material. . .

SUMM In the Examples, below, the surfaces of wooden **toothpicks** were coated and a film of MCPI transferred to the wet surfaces of glass microscope slides. The **toothpicks** were merely dipped and dried, using the same techniques as for **dental** floss.

SUMM Thus, in one embodiment of the present invention, the surfaces of the **teeth** are coated with a material which forms a "duplex film" composed of a strongly electrostatically-adhesive monolayer of a positively charged. . .

SUMM . . . single monolayer composed of a low molecular weight surfactant in which positively charged groups react with the surfaces of the **teeth** and the water repelling part of the chain forms a highly hydrophobic interface. Examples of such surfactants are cetyltrimethylammonium bromide. . .

SUMM The compositions of the present invention are generally semi-solid or solid state materials which may be applied to **dental** surfaces by brush, masticables including chewing gum, **dental** floss, **dental** tape, interdental appliances, swabs, sticks, **toothpicks** and all other applicators or methods of application by which semi-solid or solid materials may be brought into contact with **dental** surfaces. All such applicators or methods of application are hereafter referred to as "Applicators".

SUMM . . . the schematic illustrations given in FIGS. 1 and 2a and b, the compositions of the present invention, as applied to **dental** surfaces, provide a multi-stratum protective coating (hereafter called the "Protective Coating" or "PC"), as follows:

SUMM Thus, the present invention makes possible the first significant improvement in consumer or home **dental** care in decades. Specifically, the present invention provides the following advances:

SUMM I. Application of a composition of the present invention to **teeth** provides a continuous, hydrophobic, inert barrier which prevents acids, staining materials, (FIG. 9 shows several staining materials on an untreated. . . compared with the same materials on a surface treated with a composition of the present invention on the right, 9b), **food** particles, bacteria and all other materials from gaining access to the treated **dental** surface and thus provides protection against all of the usual destructive processes--including the loss of fluorine by elution. In addition, these deleterious substances attach themselves less readily to the barrier than they do to unprotected **tooth** surfaces.

SUMM II. Any bacteria or other debris which do attach to the protective barrier are easily removed by **toothbrushing**, pressure water cleaning, flossing and even by vigorous mouth rinsing since the amorphous barrier is easily cleaved or sheared, removing. . . outermost material but leaving some of its protective barrier remaining. Without such protection, bacteria which have attached themselves to the **tooth** surface soon become impossible to dislodge by **toothbrushing** or flossing and must be professionally removed. Since bacterial attachment begins to take place soon after each meal, the barrier. . .

SUMM . . . barrier material readily fills and thus seals pits, fissures and cracks which are the favorite venues for bacteria colonization and **plaque** development. The barrier remains in place until mechanically removed from these pits, etc. and thereby provides protection which is even. . . vulnerable areas, since the barrier material is not removed from pits, fissures, etc. as easily as it is from smoother **tooth** surfaces in the ordinary course of abrasive action by the tongue, mastication of **food**, **toothbrushing**, etc.

SUMM . . . is reduced by an estimated 90% or more, compared to the number and density of bacteria which attach to unprotected **tooth** surfaces. Of course, those bacteria which do attach are still easily removed by typical consumer activities such as **toothbrushing** and flossing. In addition, it appears that the hexetidine migrates or diffuses from the barrier material onto **tooth** surfaces which the barrier didn't reach, providing some protection to these hard to reach and most vulnerable areas.

SUMM V. Importantly, the benefits of the present invention can be delivered by a broad range of application methods, e.g., **toothpaste**, chewing gum, masticable matrices other than traditional chewing gum, **dental** floss and tape, Q-tip.RTM.-like swabs, **toothpicks** , interdental appliances like STIMUDENTS.RTM., pre-coated **toothbrushes**, and any other applicators for consumer or professional use that one wishes to use. The only criterion is that it must be able to bring a waxy material into contact with **dental** surfaces.

SUMM Thus, application of the present compositions is effective to treat/coat **dental** surfaces with an enduring, inert, continuous, hydrophobic composition which constitutes a physical barrier against access to **tooth** surfaces by bacteria, acids, **food** remnants, etc., and prevents loss of fluorine by elution from **dental** surfaces. In addition, significantly fewer bacteria attach to the barrier than attach to unprotected **tooth** surfaces. More importantly, bacteria and other materials which attach to the barrier are easily removed by **toothbrushing**, **dental** flossing, pressure water cleaning and even vigorous mouth rinsing since the amorphous barrier material is readily cleaved or sheared with. . .

SUMM On application and thereafter, the barrier materials of the present invention are forced to conform to the topography of the **dental** surfaces on which they are applied. Especially important, the barrier materials fill the pits, fissures, cracks and other imperfections in **dental** surfaces, thus blocking those sites in which bacteria are most frequently found and from which they are most difficult to. . . least subject to removal by the usual oral sources of abrasion and surfaces activities such as movements of the tongue, **toothbrushing**, mastication, etc. and thus provide the most enduring protection where it is most needed. In addition the adherent characteristic of. . . add particulate materials to the compositions, which materials occlude or block dentinal tubules, provide enduring relief from the pain of **dental** sensitivity from which so many people suffer.

SUMM . . . antibiotic materials, (c) anti-inflammatories, (d) anti-sensitivity materials, (e) particulates which block or occlude dentinal tubules and which assist in cleaning **dental** surfaces by abrasion, which particulates may be selected from those having porosities appropriate for use as reservoirs for desensitizing agents,. . .

SUMM . . . is blended into the barrier composition, bacterial attachment on the protective barrier is reduced by .gtoreq.90% as compared with unprotected **tooth** surfaces. Those few bacteria which may attach to the barrier surface are removable with gentle shearing action.

DRWD FIG. 1 is a partial section, taken in a horizontal plane, through a coated human **tooth**, showing the irregular **tooth** surface, the conformation of the coating to the **tooth** surface and its relative thickness, all on a much enlarged scale. The hydrophobic barrier film, containing antibacterial and other functional agents, conforms to the substrate and fills pits, fissures, cracks and other irregularities of the **tooth** surface. The transfer layer facilitates adhesion of the hydrophobic barrier film to the

tooth surface;

DRWD FIGS. 2a and b are enlarged views of the coated **tooth** surface, showing the area of the **tooth** surface in FIG. 1, to demonstrate the electrostatic charge distribution at the interface between the **tooth** surface and the transfer agent. This FIGURES illustrates the mode of attachment of the transfer agent to the negatively charged **tooth** surface. (a) The molecules of the positively charged surfactant form a dense monolayer which attaches to the negatively charged substrate.. . . from the surface. (b) Polyamine molecules adsorb to the substrate with their hydrophobic side groups facing away from the hydrophilic **tooth** surface;

DRWD FIG. 3 shows the application of a composition according to the present invention to a **tooth** by a cotton swab;

DRWD FIGS. 4a and b are photomicrographs of an untreated **tooth** (FIG. 4a) and a **tooth** treated according to the present invention (FIG. 4b) after exposure to bacteria-rich media for 48 hours;

DRWD FIG. 5 shows the application of a composition according to the present invention to a **tooth** by a **toothbrush**;

DRWD FIGS. 6a and b are photomicrographs of an untreated **tooth** (FIG. 6a) and a **tooth** treated according to the present invention (FIG. 6b) after exposure to bacteria-rich media for 48 hours;

DRWD FIG. 7 shows the application of a composition according to the present invention to a **tooth** by **dental** floss;

DRWD FIGS. 8a and b are photomicrographs of an untreated **tooth** (FIG. 8a) and a **tooth** treated according to the present invention (FIG. 8b) after exposure to bacteria-rich media for 48 hours; and

DETD To adhere a hydrophobic barrier material to a wet, hydrophilic, negatively charged **tooth** surface, a bi-functional transfer agent material is employed. This material has some active groups which are electrostatically positively charged and. . .

DETD . . . the quaternary ammonium fluorides have been used in prior art to produce a mono-layer of bi-polar material adhered to the **dental** surfaces as an end in itself. But experimentation suggests that the resulting single molecular layer is insufficient to provide a durable functional barrier against attachment of bacteria or to interdict access to **tooth** surfaces by acids, etc.

DETD Cationic transfer agent materials useful in the present invention are believed to attach to **tooth** surfaces via a completing interaction between the cationic portion of the material and the **proteinaceous** portion of the **tooth** and thus predispose or condition the surface of the **tooth** so that a waxy material will then adhere to the surface. Surface active materials that are capable of strong bonding to the negatively charged and hydrophilic surfaces of human **teeth** include various straight-chain alkylammonium compounds, cyclic alkylammonium compounds, petroleum derived cationics, and polymeric cationic materials.

DETD polydiallyldimethylammonium chloride ("**Cat**-Floc"),

DETD These cationic materials, by reacting with **dental** surfaces, produce strongly hydrophobic films onto which hydrophobic barrier materials are easily transferred by brushing, rubbing, smearing, or burnishing.

DETD It is important that the reason for this transferability be understood. The surfaces of human **teeth** are normally hydrophilic, negatively charged, and are "lubricated" by a hydrated biofilm composed of bacteria and other bioorganisms. The transfer and adhesion of the barrier materials onto such **dental** surfaces is difficult or practically impossible unless the biofilm is modified by a material that is hydrophobic and therefore compatible. . .

DETD Now having a mechanism for adhering a protective, hydrophobic material

to the hydrophilic **dental** substrate, any of several barrier materials may be selected to perform this function. A microcrystalline wax, for example, is a. . . barrier which, on application and with subsequent smearing or disturbance, is forced into pits, fissures, cracks and other irregularities of **tooth** surfaces, thus blocking those sites most vulnerable to occupation by undesirable bacteria and other debris. This waxy barrier appears to. . . mechanically removed. Thus, with the transfer and barrier functions performed, extended protection is provided against deleterious activities since the treated **dental** surfaces are entirely sealed against bacteria, acids, staining materials, loss of **dental** fluorine, etc.

DETD . . . removed easily by the application of moderate shear forces such as are applied by the action of the tongue against **dental** surfaces, **toothbrushing**, **dental** flossing, forced water cleaning or vigorous mouth rinsing. This same low-shear characteristic moves the barrier materials about, exposing any active. . .

DETD These polymers can be applied to a **dental** appliance as aqueous or non-aqueous dispersions.

DETD . . . invention demonstrates that some types of materials inhibit or defeat the attachment and/or propagation, growth or colonization of bacteria on **dental** surfaces. The bacteria with which the experiments were performed, Streptococcus mutans, and Streptococcus sobrinus, are shown to be major sources of bacterial **plaque** colonies and their sequelae.

DETD . . . are not germicides can be used in compositions of the present invention to counter bacterial attachment, development of caries, and **plaque** information. Examples of applicable antimicrobial agents belong to the following types.

DETD . . . a non-aqueous dispersion containing micro-crystalline wax, paraffin oil and hexetidine was prepared. The resulting mixture was applied to a polyamide **dental** tape by drawing the tape through the dispersion. After drying, the tape was drawn over extracted human **teeth** and glass rods. Testing and observation evidenced that a substantial, smooth and continuous coating of a waxy barrier film had been applied both to the surfaces of the **teeth** and the glass rods.

DETD The film was also transferred when the **dental** and glass surfaces were wetted with water immediately prior to the treatment. The hydrophobic films of applied material were not removed by brushing them with ten strokes of a **toothbrush** while submerged in water.

DETD The present **dental** delivery systems may be prepared by coating a suitable substrate (**dental** floss, **toothbrush**, **toothpick**, etc.) with the present composition. This may conveniently be carried out by dipping the substrate in the suspension or solution. . .

DETD Most conveniently, the present compositions may be used and applied in the same manner as a conventional **toothpaste** and squeezed from a tube onto a **toothbrush** or other appliance; or the compositions may be packaged in a box or other container from which the composition may be applied to a **toothbrush** by the brush being passed over and into the composition. Should modification of the viscosity of the present compositions be. . .

DETD The present method of protecting the **teeth** may be carried out by contacting the present **dental** delivery system with the **teeth** to effect transfer of the composition from the **dental** delivery system to the surface of the **teeth**. The exact means of contacting will depend of course on the nature of the **dental** delivery system. Thus, in the case of **toothpaste**

, brushing will suffice to apply the compositions while masticables will be applied as the act of chewing applies and compresses the compositions onto and into the surfaces of the **teeth**, while **dental** floss requires flossing and **toothpicks**, swabs and other appliances will require rubbing or smearing actions for applications.

DETD In all of the following examples in which **teeth** are mentioned, the **teeth** are extracted human **teeth** which were professionally cleaned with abrasives, sterilized by multiple autoclaving and, prior to use in the following examples, hydrated in distilled water for at least one hour. Immediately prior to use the **teeth** were immersed in and withdrawn from a mixture of distilled water and fresh human saliva (at approximately 1:1 by volume),. . .

DETD . . . was allowed to evaporate at an elevated temperature of about 50.degree. C. The coated applicator was then rubbed against a **tooth** surface until a smooth and water-repelling film was obtained, the **tooth** surface having been wetted with a 1:1 by volume mixture of distilled water and fresh human saliva immediately prior to. . .

DETD . . . ml of BHI medium containing 4% sucrose and shaken at 120 strokes/minute for 3 minutes. The tested samples of untreated **teeth** and **teeth** coated with the transfer film were then placed into the inoculated medium and incubated under anaerobic conditions at 37.degree. C. for 48 hours. After removal from the medium, the **teeth** were rinsed in water and stained with Crystal Violet stain. Examination by microscopy revealed significant inhibition of bacterial adherence in. . .

DETD A mixture was prepared as described in Example I. A polyamide **dental** floss, as manufactured for Johnson & Johnson, Inc., was drawn through and vertically out of the mixture at a rate. . . elevated temperature, a short strand of the floss, approx. 2 feet in length, was drawn back and forth across the **tooth** surfaces (extracted human central incisors), imitating a normal flossing procedure, until a uniform and tenaciously adhering film was produced (see. . . high degree of hydrophobicity as attested by measurements of contact angles in excess of 90.degree.. Adherence of bacteria to the **tooth** surfaces was evaluated according to the procedure outlined in Example I. A significant inhibition of bacterial adherence to the transferred. . .

DETD A mixture was prepared as described in Example I. Wooden **toothpicks** were immersed in the mixture and slowly withdrawn. After drying at room temperature, **toothpicks** were rubbed over wetted extracted **tooth** surfaces until a smooth and continuous film was formed. Further, in order to determine the degree of hydrophobicity imparted by. . . angles showed values in excess of 90.degree. indicating a high degree of hydrophobicity of the interface. Exposure of the treated **teeth** to the bacteria media for 48 hours or more demonstrated a significant reduction in bacteria adsorption, comparable to the reduction. . .

DETD A mixture was prepared as described in Example I. Ordinary **toothbrushes**, some of the bristles of which were "natural" fibers, and some nylon, were immersed in the mixture and withdrawn at a rate of about 3 mm/sec. After drying at an elevated temperature, the **toothbrushes** were drawn back and forth several times over the **tooth** surfaces, simulating the action and movement of **toothbrushing** (see FIG. 5).

DETD Treated surfaces of the **teeth** were then observed by microscope. Substantial, smooth and continuous layers of the deposited waxy material appeared on the **tooth** surfaces. Further, in order to determine the degree of hydrophobicity imparted by the waxy films, drops of water were deposited. . .

DETD Adherence of bacteria to the **tooth** surfaces was evaluated according to the procedure outlined in Example I. A significant inhibition of bacterial adherence to the barrier. . .

DETD A mixture was prepared as described in Example V. A polyamide **dental** floss, as manufactured for Johnson & Johnson, Inc., was drawn through and vertically out of the mixture at a rate. . . elevated temperature, a short strand of the floss, approx. 2 feet in length, was drawn back and forth across the **tooth** surfaces, imitating a normal flossing procedure, until a uniform and tenaciously adhering film was produced. The film exhibited a high degree of hydrophobicity as attested by measurements of contact angles in excess of 90.degree.. Adherence of bacteria to the **tooth** surfaces was evaluated according to the procedure outlined in Example I. A significant inhibition of bacterial adherence to the barrier. . .

DETD A mixture was prepared as described in Example V. Wooden **toothpicks** were immersed in the mixture and slowly withdrawn. After drying at room temperature, the **toothpicks** were rubbed repeatedly over wetted **tooth** surfaces until a smooth and continuous film was formed. Further, in order to determine the degree of hydrophobicity imparted by. . . measurements showed values in excess of 90.degree. indicating a high degree of hydrophobicity of the interface. Exposure of the treated **teeth** to bacterial media resulted in a significant reduction in bacteria adsorption comparable to the reduction observed in Examples V and. . .

DETD A mixture was prepared as described in Example V. Ordinary **toothbrushes**, some of the bristles of which "natural" fibers, and some nylon, were immersed in the mixture and slowly withdrawn. After drying at an elevated temperature, the **toothbrushes** were drawn back and forth several times over wetted **tooth** surfaces, simulating the action and movement of **toothbrushing**. The treated surfaces of the **teeth** were then observed by microscope. Substantial, smooth and continuous layers of the deposited waxy material appeared on the **tooth** surfaces. Further, in order to determine the degree of hydrophobicity imparted by the waxy films, drops of water were deposited. . . in bacterial media showed a significant inhibition of bacterial adherence. Further, it was noted that subsequent brushing, while both the **tooth** and **toothbrush** were immersed in water, resulted in complete removal of bacteria from the waxy film while the surrounding untreated areas remained. . .

DETD A mixture was prepared as described in Example IX. A polyamide **dental** floss, as manufactured for Johnson & Johnson, Inc., was drawn through and vertically out of the mixture at a rate. . . an elevated temperature, a short strand of the floss, approx. 2 feet in length, was drawn back and forth across **tooth** surfaces (human central incisors), imitating a normal flossing procedure, until a uniform and tenaciously adhering film was produced. The film. . . degree of hydrophobicity as attested by measurements of contact angles in excess of 90.degree.. Adherence of bacteria to the treated **tooth** surfaces was evaluated according to the procedure outlined in Example I. Examination by microscopy (FIGS. 8a and 8b) revealed that. . .

DETD A mixture was prepared as described in Example IX. Wooden **toothpicks** were immersed in the mixture and withdrawn. After drying at room temperature, **toothpicks** were rubbed repeatedly over wetted **tooth** surfaces until a smooth and continuous film was formed. Further, in order to determine the degree of hydrophobicity imparted by. . . measurements showed values in excess of 90.degree. indicating a high degree of hydrophobicity of the interface. Exposure of the treated **teeth** to bacterial media resulted in a negligible

amount of isolated bacterial colonies adhering to the film surface.

DETD A mixture was prepared as described in Example IX. Ordinary **toothbrushes**, some of the bristles of which were "natural" fibers, and some nylon, were immersed in the mixture and slowly withdrawn. After drying at an elevated temperature, the **toothbrushes** were drawn back and forth several times over wetted **tooth** surfaces, simulating the action and movement of **toothbrushing**. The treated surfaces of the **teeth** were then observed by microscope. Substantial, smooth and continuous layers of the deposited waxy material appeared on the **tooth** surfaces. Further, in order to determine the degree of hydrophobicity imparted by the waxy films, drops of water were deposited. . . including bacteria (FIGS. 6a and 6b). Microscopic observations failed to detect any residual bacteria or bacterial colonies after the treated **tooth** surfaces were gently brushed with a **toothbrush** under running tap water.

DETD . . . and the solvent was allowed to evaporate at an elevated temperature (40-50.degree. C). The cotton applicator was then rubbed against **tooth** surfaces until a smooth and water-repelling film was obtained.

DETD . . . surfaces was evaluated according to the procedure outlined in Example I. Examination by microscopy showed that treated surface areas of **teeth** were essentially free of adsorbed bacteria while untreated control surfaces were laden with heavy deposits of adhered bacterial colonies (FIGS.. . .

DETD A polyamide **dental** floss, as manufactured for Johnson & Johnson, Inc. was drawn through the mixture at a rate of about 3 mm. . .

DETD A mixture was prepared as described in Example XVI. Ordinary **toothbrushes**, some of the bristles of which were "natural" fibers, and some of which were nylon, were brushed across the semi-solid mixture. The coated **toothbrushes** were then brushed across a wet microscope slide, simulating the action and movement of **toothbrushing**. Substantial and continuous layers of the waxy mixture material were transferred to the wet microscope slide. Further, in order to. . . Microscopic observations failed to detect any residual bacteria or bacterial colonies after the treated slides were gently brushed with a **toothbrush** under running tap water.

DETD Adherence of bacteria to the **tooth** surfaces was evaluated according to the procedure outlined in Example I. A highly significant inhibition of bacterial adherence to the. . .

DETD To determine the efficacy of the composition in inhibiting the development of caries when applied in vivo to **teeth**, a rat caries trial was conducted.

DETD . . . was to test whether once-daily, 5 day/week brief applications of one of the compositions of the present invention to the **teeth** of rats will result in reduction of **plaque** bacterial numbers, S. mutans numbers, and **dental** caries in S. mutans-colonized Specific Pathogen Free Osborne-Mendal rats eating a high sucrose diet known to foster **plaque** formation and **dental** caries. Twenty animals were used as controls and twenty as experimentals over the 43 day trial period. The results of. . . potently reduces recoveries of S. mutans, and is potently anticariogenic. Of course, experimental animals eat many times daily and retain **food** in the fissures of their **teeth**. Indeed, one must expect the cariogenic challenge to be severe in these locations, and it is noteworthy that compositions of the present invention had so much effectiveness there, albeit less so than on smooth surfaces of **teeth** which mechanically retain little **food**. For total (i.e. smooth surface+sulcal) enamel lesions, scores were reduced by 55%

for hemimandibular and 40% for maxillary **teeth** respectively; for total dentinal lesions, scores were reduced by 60% for hemimandibular and 54% for maxillary **teeth**, respectively, where caries were scored by the method of Keyes (1958), as modified by Larson (1981). These differences are highly. . .

DETD It should be noted that the occlusal surfaces of the rats **teeth** were constantly filled and impacted with hair, **food** and other debris and that no attempt was made to remove any of it at any time during the trial.. . . is expected that even more dramatically beneficial results will be obtained in human trials in which at least gross debris, **food** particles, etc. are removed on a regular basis so that the composition of the present invention can be applied into. . .

DETD . . . 0.07 grams of hexetidine and 0.1 grams of peppermint oil and stirred until homogenous. The composition was applied to extracted **teeth** with a cotton swab and the procedure described above was followed.

DETD Adherence of bacteria to the **tooth** surfaces was evaluated according to the procedure outlines in Example I. A highly significant inhibition of bacterial adherence to the. . .

DETD . . . present invention used in Example XXII, 0.5 mg of hexetidine is contained in the typical 50 mg dose used in **toothbrushing**, most of which is captured in the waxy matrix and what little may be available at the surface of the. . .

CLM What is claimed is:

6. The composition of claim 3, which is a **toothpaste** or a chewing gum.

10. The composition of claim 7, which is a **toothpaste** or a chewing gum.

17. The composition of claim 16, which is a **toothpaste** or a chewing gum.

22. The composition of claim 18, which is a **toothpaste** or a chewing gum.

23. A method of protecting **teeth**, comprising treating **teeth** with a composition, wherein said composition comprises: (a) a transfer agent; and (b) a barrier material, wherein: said transfer agent. . .

28. The method of claim 25, wherein said composition is in the form of a **toothpaste** or chewing gum.

32. The method of claim 29, wherein said composition is in the form of a **toothpaste** or chewing gum.

33. A method of protecting **teeth**, comprising treating **teeth** with a composition, wherein said composition comprises: (a) a transfer agent; (b) a barrier material; and (c) an active agent,. . .

39. The method of claim 35, wherein said composition is in the form of a **toothpaste** or chewing gum.

44. The method of claim 40, wherein said composition is in the form of a **toothpaste** or chewing gum.

45. A **dental** delivery system, comprising a substrate coated with a composition, wherein said composition comprises: (a) a transfer agent; and (b) a. . .

46. The **dental** delivery system of claim 45, wherein: said transfer agent is present in an amount of 3 to 5 wt. %,. . .
47. The **dental** delivery system of claim 45, wherein said transfer agent is hexetidine.

48. The **dental** delivery system of claim 47, wherein said barrier material is selected from the group consisting of natural waxes, synthetic waxes,. . .
49. The **dental** delivery system of claim 47, wherein said barrier material is a microcrystalline wax.

50. The **dental** delivery system of claim 47, wherein said composition is in the form of a **toothpaste** or chewing gum.

51. The **dental** delivery system of claim 45, wherein said transfer agent is cetylpyridinium halide.

52. The **dental** delivery system of claim 51, wherein said barrier material is selected from the group consisting of natural waxes, synthetic waxes,. . .
53. The **dental** delivery system of claim 51, wherein said barrier material is a microcrystalline wax.

54. The **dental** delivery system of claim 51, wherein said composition is in the form of a **toothpaste** or chewing gum.

55. A **dental** delivery system, comprising a substrate coated with a composition, wherein said composition comprises: (a) a transfer agent; (b) a barrier. . .
56. The **dental** delivery system of claim 55, wherein: said transfer agent is present in an amount of 1 to 5 wt. %,. . .
57. The **dental** deliver system of claim 55, wherein said transfer agent is hexetidine.

58. The **dental** delivery system of claim 57, wherein said barrier material is selected from the group consisting of natural waxes, synthetic waxes,. . .
59. The **dental** delivery system of claim 57, wherein said barrier material is a microcrystalline wax.

60. The **dental** delivery system of claim 57, wherein said active agent is chlorhexidine.

61. The **dental** delivery system of claim 57, wherein said composition is in the form of a **toothpaste** or chewing gum.

62. The **dental** delivery system of claim 55, wherein said transfer agent is cetylpyridinium halide.

63. The **dental** delivery system of claim 62, wherein said barrier material is selected from the group consisting of natural waxes, synthetic waxes,. . .
64. The **dental** delivery system of claim 62, wherein said barrier material is a microcrystalline wax.

65. The **dental** delivery system of claim 62, wherein said active agent is selected from the group consisting of hexetidine and chlorhexidine.

66. The **dental** delivery system of claim 62, wherein said

composition is in the form of a **toothpaste** or chewing gum.

67. A method for alleviating sensitivity of **teeth**, comprising sensitive **teeth** with a composition, wherein said composition comprises: (a) a transfer agent; and (b) a barrier material, wherein: said transfer agent. . .
72. The method of claim 69, wherein said composition is in the form of a **toothpaste** or chewing gum.

76. The method of claim 73, wherein said composition is in the form of a **toothpaste** or chewing gum.

77. A method for alleviating sensitivity of **teeth**, comprising sensitive **teeth** with a composition, wherein said composition comprises: (a) a transfer agent; (b) a barrier material; and (c) an active agent,. . .
83. The method of claim 79, wherein said composition is in the form of a **toothpaste** or chewing gum.

88. The method of claim 84, wherein said composition is in the form of a **toothpaste** or chewing gum.

IT 55-56-1, Chlorhexidine 104-73-4, Laurylpyridinium bromide 104-74-5, Laurylpyridinium chloride **123-03-5**, Cetylpyridinium chloride 140-72-7, Cetylpyridinium bromide 141-94-6 143-27-1, Cetylamine 1691-44-7 9002-98-6 9003-05-8, Polyacrylamide 9003-39-8, PVP 9003-47-8, Polyvinylpyridine 9013-34-7, Diethylaminoethyl cellulose 26062-79-3, Polydiallyldimethylammonium chloride 28728-55-4, 1,5-Dimethyl-1,5-diazaundecamethylene polymethobromide 28757-47-3 71550-12-4, Polyallylamine hydrochloride
(oral hygienic compns. contg. bactericides and protective barrier-forming agents)

=> d ibib abs hitstr 2

L69 ANSWER 2 OF 8 USPATFULL
ACCESSION NUMBER: 1999:58918 USPATFULL
TITLE: Antitartar composition and its use in **food** supplements for animals
INVENTOR(S): Cyr, Jean-Paul, Beaumont, France
Denoun, Jean-Marc, Paris, France
PATENT ASSIGNEE(S): Societe a Responsabilite Limitee, Naintre, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5904928		19990518
APPLICATION INFO.:	US 1997-844704		19970418 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1996-4956	19960419

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rose, Shep K.
LEGAL REPRESENTATIVE: Darby&Darby
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 283
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to an anti-tartar composition comprising:

(a) 0.5 to 5% by weight of at least one compound selected from among zirconium silicate and hydrated silica;

(b) 0.5 to 5% by weight of at least one compound selected from among chlorhexidine digluconate and zinc digluconate;

(c) 0.5 to 5% by weight of at least one compound selected from among potassium thiocyanate, glucose oxidase, lysozyme, and lactoperoxidase; and

(d) 1 to 5% by weight of at least one acid compound selected from among vitamin C and citric acid.

It also concerns the use thereof in combination with **food** supplements or chewable supports for animals as well as the **food** supplements and chewable articles thus obtained.

The invention applies, in particular, to the control of the formation of tartar in domestic animals such as **dogs**.

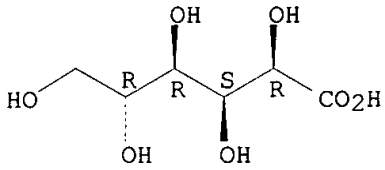
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **18472-51-0**, Chlorhexidine digluconate
(anticalculus compn. and its use in animal feed supplements)
RN 18472-51-0 USPATFULL
CN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 526-95-4

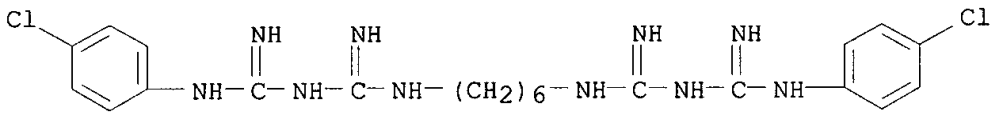
CMF C6 H12 O7
CDES 5:D-GLUCO

Absolute stereochemistry.



CM 2

CRN 55-56-1
CMF C22 H30 Cl2 N10



=> d ibib abs hitstr 3

L69 ANSWER 3 OF 8 USPATFULL
ACCESSION NUMBER: 1999:39907 USPATFULL
TITLE: Methods, compositions, and **dental** delivery systems for the protection of the surfaces of **teeth**
INVENTOR(S): Homola, Andrew M., Morgan Hill, CA, United States
Dunton, Ronald K., Santa Cruz, CA, United States
PATENT ASSIGNEE(S): Four Star Partners, Scotts Valley, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5888480		19990330
APPLICATION INFO.:	US 1995-479210		19950607 (8)

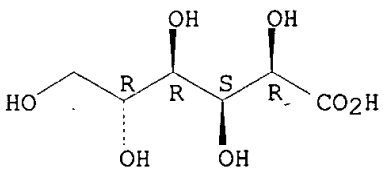
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-373946, filed on 17 Jan 1995, now patented, Pat. No. US 5665333
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rose, Shep K.
LEGAL REPRESENTATIVE: Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 1607
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention discloses compositions containing lecithin and/or bactericidal compounds, and hydrophobic materials which form, upon application to **dental** surfaces, adhesive, protective and bacteria-inhibiting barriers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **18472-51-0**
(protection of surfaces of teeth with compns. contg. lecithin, bactericidal compds., and hydrophobic materials)
RN 18472-51-0 USPATFULL
CN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1) (9CI) (CA INDEX NAME)

CM 1

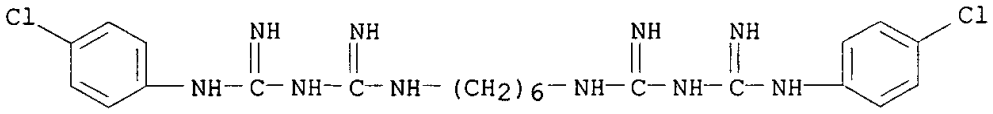
CRN 526-95-4
CMF C6 H12 O7
CDES 5:D-GLUCO

Absolute stereochemistry.



CM 2

CRN 55-56-1
CMF C22 H30 Cl2 N10



=> d ibib abs hitstr 4

L69 ANSWER 4 OF 8 USPATFULL

ACCESSION NUMBER:	97:101484 USPATFULL		
TITLE:	Orally-administered dosage form for animals, preparation method therefor and uses thereof		
INVENTOR(S):	Derrieu, Guy, Cagnes Sur-Mer, France Aubert, Andre, Opio, France Raynier, Bernard, Nice, France Schumacher, Carolin L., Vence, France		
PATENT ASSIGNEE(S):	Virbac S.A., Carros, France (non-U.S. corporation)		

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5683722		19971104	
	WO 9511665		19950504	
APPLICATION INFO.:	US 1996-637642		19960801	(8)
	WO 1994-FR1251		19941027	
			19960801	PCT 371 date
			19960801	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1993-12954	19931029

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Page, Thurman K.
ASSISTANT EXAMINER:	Benston, Jr., William E.
LEGAL REPRESENTATIVE:	Lowe, Price, LeBlanc & Becker
NUMBER OF CLAIMS:	13
EXEMPLARY CLAIM:	1
LINE COUNT:	592

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A dosage form for orally administering chemical or medicinal substances such as vitamins, trace elements, amino acids, nutritive substances, vaccines, etc., to domestic or wild animals, and a method for preparing same, are disclosed. Said dosage form includes: a porous water-soluble central core containing binders selected from polypeptides, polysaccharides, polymers and colloids, and/or diluents selected from polyols, metal oxides, carbonates, phosphates and microcrystalline cellulose, and an effective amount of at least one bioactive substance; and a palatable hydrophobic outer layer containing at least one lipid substance selected from fatty alcohols, fatty acids, glycerol esters, hydrogenated oils, waxes, paraffin, lanolin, coconut oil and fatty acid salts; a polymeric agent for modulating the disintegration and adhesion of said outer layer, and natural or synthetic palatable substances.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

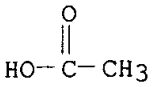
IT **56-95-1**, Chlorhexidine diacetate
(oral compns. for veterinary uses)

RN 56-95-1 USPATFULL

CN 2,4,11,13-Tetraazatetradecanediimidamide, N,N''-bis(4-chlorophenyl)-3,12-diimino-, diacetate (9CI) (CA INDEX NAME)

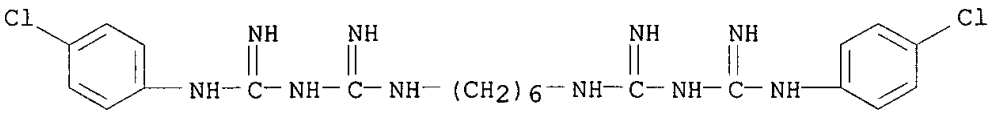
CM 1

CRN 64-19-7
CMF C2 H4 O2



CM 2

CRN 55-56-1
CMF C22 H30 Cl2 N10



=> d ibib abs hitstr 5

L69 ANSWER 5 OF 8 USPATFULL
ACCESSION NUMBER: 97:14401 USPATFULL
TITLE: Medicated **dental** floss and method of preparation
INVENTOR(S): Bowen, Mark A., Stowe, MA, United States
PATENT ASSIGNEE(S): Whalen Biomedical Incorporated, Somerville, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5603921		19970218
APPLICATION INFO.:	US 1995-403182		19950313 (8)

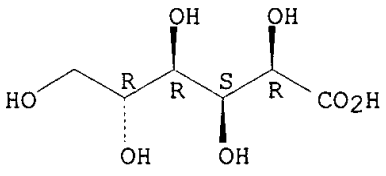
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Killos, Paul J.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 443
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A medicated **dental** floss and a method of preparation is presented for controlling the bacterial activity associated with **gingivitis**. The floss incorporates an antimicrobial agent which, as a result of the flossing action, is deposited to the interdental area of the **teeth**. The slow dissolution of the antimicrobial agent ensures that effective levels of medication are attained for sustained periods, thereby reducing bacterial activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **18472-51-0**, Chlorhexidine gluconate
(antimicrobial agent-coated dental floss)
RN 18472-51-0 USPATFULL
CN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1) (9CI) (CA INDEX NAME)

CM 1

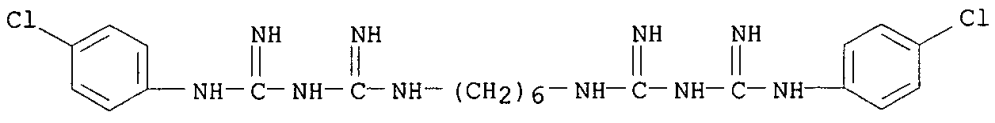
CRN 526-95-4
CMF C6 H12 O7
CDES 5:D-GLUCO

Absolute stereochemistry.



CM 2

CRN 55-56-1
CMF C22 H30 C12 N10



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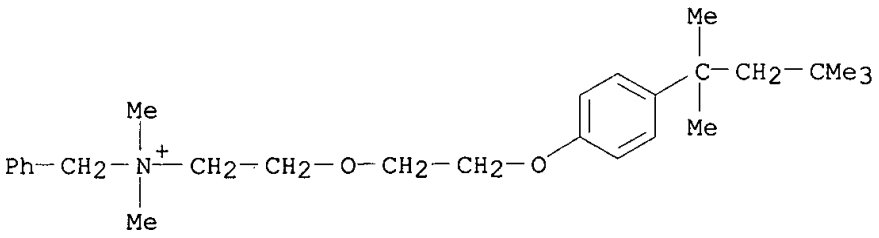
L69 ANSWER 6 OF 8 USPATFULL
ACCESSION NUMBER: 95:36184 USPATFULL
TITLE: Dried hydrogel from hydrophilic-hygroscopic polymer
INVENTOR(S): McAnalley, Bill H., Grand Prairie, TX, United States
Boyd, Stephen, Tyler, TX, United States
Carpenter, Robert H., Bastrop, TX, United States
Hall, John E., Grand Prairie, TX, United States
St. John, Judith, Irving, TX, United States
PATENT ASSIGNEE(S): Carrington Laboratories, Inc., Irving, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5409703		19950425	
APPLICATION INFO.:	US 1993-82028		19930624	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Kulkosky, Peter F.
LEGAL REPRESENTATIVE: Konneker Bush Hitt & Chwang
NUMBER OF CLAIMS: 68
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 1616
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A therapeutic medical device is described that is comprised of a dried hydrogel of a hydrophilic-hygroscopic polymer, such as an unmodified or modified polymeric carbohydrate, in the form of a solid foam. The dried hydrogel is prepared by preferably freeze-drying a hydrogel of this polymer in a liquid medium, such as water. The dried hydrogel can be sterilized by radiation or other means so that the sterilized product has a relatively indefinite shelf-life without refrigeration. The resultant dried hydrogel can be transformed into a hydrogel upon absorption of addition liquid medium. The described therapeutic device can serve as a dressing for a wound or lesion, drug delivery system, a hemostatic agent and a biologic response modifier. The described therapeutic device enhances the wound healing rate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **121-54-0**, Benzethonium chloride
(dried hydrogel from hydrophilic-hygroscopic polymer for wound healing)
RN 121-54-0 USPATFULL
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl^-

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L49 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:390390 HCAPLUS
DOCUMENT NUMBER: 131:49468
TITLE: **Oral** GLP-1 formulations for antidiabetic and other therapeutic applications
INVENTOR(S): Hoffmann, James Arthur
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9929336	A1	19990617	WO 1998-US25515	19981202
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9916173	A1	19990628	AU 1999-16173	19981202
EP 1049486	A1	20001108	EP 1998-960617	19981202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2001525371	T2	20011211	JP 2000-524005	19981202

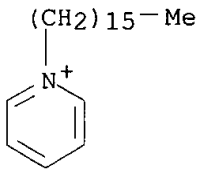
PRIORITY APPLN. INFO.: US 1997-67600 P 19971205
WO 1998-US25515 W 19981202

AB Methods and formulations are presented that provide for (a) the **oral** absorption of GLP-1 peptides that bind surfactants; and (b) long-term storage of formulations contg. these peptides. For example, a GLP-1/DSS complex is administered **orally** instead of parenterally, which is much more convenient for, and facilitates compliance with diabetic patients and persons with other GLP-1 treated conditions.

IT **123-03-5, Cetylpyridinium chloride**
7647-14-5, Sodium chloride, biological studies
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**oral** GLP-1 formulations for antidiabetic and other therapeutic applications)

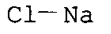
IT **123-03-5, Cetylpyridinium chloride**
7647-14-5, Sodium chloride, biological studies
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**oral** GLP-1 formulations for antidiabetic and other therapeutic applications)

RN 123-03-5 HCAPLUS
CN Pyridinium, 1-hexadecyl-, chloride (8CI, 9CI) (CA INDEX NAME)



● Cl^-

RN 7647-14-5 HCAPLUS
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7
REFERENCE(S):
(1) Buckley; US 5545618 A 1996 HCAPLUS
(2) Friend; US 5811388 A 1998 HCAPLUS
(3) Habener; US 5120712 A 1992 HCAPLUS
(4) Heiber; US 5766620 A 1998 HCAPLUS
(5) Novo Nordisk AS; WO 9318785 A1 1993 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitrn hitstr 2

L49 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:685007 HCAPLUS
DOCUMENT NUMBER: 129:287566
TITLE: Simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids
INVENTOR(S): Goldstein, Andrew S.; Bestwick, Richard K.
PATENT ASSIGNEE(S): Epitope, Inc., USA
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9844158	A1	19981008	WO 1998-US6096	19980327
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9865896	A1	19981022	AU 1998-65896	19980327
US 6309827	B1	20011030	US 1998-49714	19980327

PRIORITY APPLN. INFO.: US 1997-42124 P 19970328
WO 1998-US6096 W 19980327

AB This invention provides for a rapid and convenient method of simultaneous collection of both genomic and diagnostic information from a single sample on a bibulous pad by differential extn. of the diagnostic information from the genomic information. Samples may be collected from the mouth, rectum, vagina or nose. It is a surprising discovery of this invention that a PCR assay on the contents of the bibulous pad provides results comparable in reliability, specificity, and sensitivity to the best available serum (blood) based assays. The assays of this invention can be used to confirm each other, either by detecting the genomic information leading to the diagnostic information, or by detecting in the genomic information, a predisposition to a disease and confirming the presence of the disease through diagnostic testing.

IT **18472-51-0, Chlorhexidine digluconate**
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT **7447-40-7**, Potassium chloride (KCl), biological studies
7647-14-5, Sodium chloride, biological studies
RL: BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT **18472-51-0, Chlorhexidine digluconate**
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use,

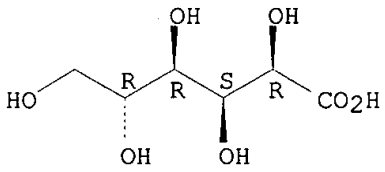
unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

RN 18472-51-0 HCAPLUS
CN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1) (9CI) (CA INDEX NAME)

CM 1

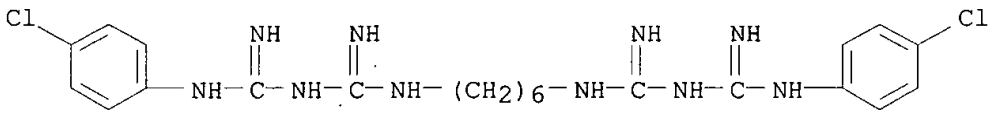
CRN 526-95-4
CMF C6 H12 O7
CDES 5:D-GLUCO

Absolute stereochemistry.



CM 2

CRN 55-56-1
CMF C22 H30 Cl2 N10



IT **7447-40-7**, Potassium chloride (KCl), biological studies
7647-14-5, Sodium chloride, biological studies
RL: BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

RN 7447-40-7 HCAPLUS
CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl—K

RN 7647-14-5 HCAPLUS
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl—Na

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L49 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2001 ACS
IC ICM A61K038-26
CC 63-6 (Pharmaceuticals)
ST GLP1 **oral** formulation antidiabetic sequence; glucose lowering peptide 1 **oral** formulation antidiabetic
IT Cytoprotective agents
(cardioprotective; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT Metabolism, **animal**
(disorder, catabolic; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT Gene, **animal**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(glp-1, peptide product; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT Peptides, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(glucose-lowering peptide 1; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT Heart, disease
(infarction; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT Antidiabetic agents
Antiobesity agents
Preservatives
Protein sequences
Surfactants
(**oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT Drug delivery systems
(**oral**; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT Brain, disease
(stroke; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT 106612-94-6 107444-51-9
RL: BAC (Biological activity or effector, except adverse); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(amino acid sequence; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)
IT 56-81-5, 1,2,3-Propanetriol, biological studies 99-76-3, Methylparaben 100-51-6, Benzyl alcohol, biological studies **123-03-5**, **Cetylpyridinium chloride** 128-49-4, Docusate calcium 145-42-6, Sodium taurocholate 151-21-3, Sodium dodecyl sulfate, biological studies 302-95-4, Sodium deoxycholate 361-09-1, Sodium cholate 577-11-7 863-57-0, Sodium glycocholate 1984-06-1, Sodium caprylate 7491-09-0, Docusate potassium **7647-14-5**, Sodium chloride, biological studies 9002-92-0, Brij 35 9002-93-1, Triton X-100 9005-65-6, Tween 80 9005-66-7, Tween 40 29777-99-9D, N-alkyl derivs. 59122-55-3, Dodecyl .beta.-D-glucopyranoside 75621-03-3
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(**oral** GLP-1 formulations for antidiabetic and other therapeutic applications)

IT 108-39-4, biological studies 108-95-2, Phenol, biological studies
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preservative; **oral** GLP-1 formulations for antidiabetic and other therapeutic applications)

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L49 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2001 ACS
IC ICM, C12Q001-68
ICS C12Q001-70; G01N033-574; G01N033-68; G01N033-569
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3, 4, 6, 13, 14
ST DNA **protein** collection analysis mouth diagnosis
IT Chemokine receptors
RL: ANT (Analyte); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(CKR5; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Genes (**animal**)
RL: ANT (Analyte); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(SCA2; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Medical goods
(absorbents; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Cheek mucosa
(cell; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Genes (**animal**)
RL: ANT (Analyte); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(for CKR5; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Genes (**animal**)
RL: ANT (Analyte); ARU (Analytical role, unclassified); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(for colon cancer susceptibility; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Genes (**animal**)
RL: ANT (Analyte); ARU (Analytical role, unclassified); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(for hereditary prostate cancer; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Genes (**animal**)
RL: ANT (Analyte); ARU (Analytical role, unclassified); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(for lung cancer susceptibility; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Detergents
(ionic; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Absorbents
(medical; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)
IT Anti-infective agents
Antimicrobial agents
Bar code labels
Blood
Blood analysis
Buffers

Cancer diagnosis
Cell membrane
Centrifugation
Chelating agents
Colon tumors
DNA sequences
Diagnosis
Drugs of abuse
Extraction
Genetic markers
Human immunodeficiency virus
Human immunodeficiency virus 1
Immunoassay
Ionic surfactants
Lung tumors
Mouth
Mouth diseases
Nonionic detergents
Nonionic surfactants
Nose
Nucleic acid amplification (method)
Nucleic acid hybridization
Oral bacteria
Oral mucosa
PCR (polymerase chain reaction)
Preservatives
Pressure
Prostatic tumors
RNA sequences
Rectum
Saliva
Sampling apparatus
Serum (blood)
Tumor markers
Urine
Urine analysis
Vagina
Virus
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Cannabinoids
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); ARU (Analytical role, unclassified); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Antibodies
Carcinoembryonic antigen
Prostate-specific antigen
Tumor-associated antigen
p53 (**protein**)
p53 gene (**animal**)
RL: ANT (Analyte); ARU (Analytical role, unclassified); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT CFTR gene (**animal**)
DNA
Nucleic acids

Proteins (general), analysis
RNA
RL: ANT (Analyte); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Probes (nucleic acid)
RL: ARU (Analytical role, unclassified); BPR (Biological process); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Phenols, biological studies
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT CFTR (cystic fibrosis transmembrane conductance regulator)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Alkali metal compounds
RL: BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Ataxia
(spinocerebellar; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Drugs
(therapeutic; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT Hemoglobins
RL: ANT (Analyte); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(.beta.-; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT 214073-67-3 214073-73-1
RL: ARU (Analytical role, unclassified); BPR (Biological process); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(PCR probe; simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT 50-36-2, Cocaine 50-36-2D, Cocaine, metabolites 537-46-2D, Methamphetamine, derivs.
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); ARU (Analytical role, unclassified); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT 9001-84-7, Phospholipase A2 9030-53-9, Galactokinase 94716-09-3, Cathepsin K
RL: ANT (Analyte); ARU (Analytical role, unclassified); BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT 486-56-6, Cotinine
RL: ANT (Analyte); ARU (Analytical role, unclassified); BOC (Biological occurrence); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT 9001-92-7, **Proteinase** 39450-01-6
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT 56-75-7D, Chloramphenicol, salts 57-92-1D, Streptomycin, salts 532-32-1, Sodium benzoate 1403-66-3D, Gentamicin, salts 7439-97-6D, Mercury, salts **18472-51-0**, **Chlorhexidine digluconate** 24634-61-5, Potassium sorbate 26628-22-8, Sodium azide 37205-61-1, Protease inhibitor
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

IT 60-00-4, EDTA, biological studies 151-21-3, biological studies 1185-53-1, Tris hydrochloride **7447-40-7**, Potassium chloride (KCl), biological studies 7487-88-9, Magnesium sulfate, biological studies **7647-14-5**, Sodium chloride, biological studies 7786-30-3, Magnesium chloride, biological studies 9005-64-5, Tween 20 10043-52-4, Calcium chloride, biological studies
RL: BUU (Biological use, unclassified); DEV (Device component use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simultaneous collection of DNA and non-nucleic acid analytes from **oral** fluids)

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L49 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:661494 HCAPLUS
DOCUMENT NUMBER: 129:298375
TITLE: Antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases
INVENTOR(S): Squires, Meryl
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

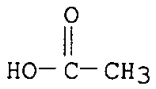
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9842188	A1	19981001	WO 1998-US5792	19980324
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9867718	A1	19981020	AU 1998-67718	19980324
AU 727339	B2	20001207		
BR 9807892	A	20000222	BR 1998-7892	19980324
EP 980203	A1	20000223	EP 1998-913086	19980324
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000119188	A2	20000425	JP 1999-315917	19980324
NO 9904639	A	19991124	NO 1999-4639	19990924

PRIORITY APPLN. INFO.: US 1997-824041 A 19970326
JP 1998-545926 A3 19980324
WO 1998-US5792 W 19980324

AB An improved medical treatment and medicine is provided to quickly and safely resolve HIV and other microbial infections. The inexpensive medicine can be self administered and maintained for the prescribed time. The attractive medicine comprises an antimicrobial conc. comprising microbe inhibitors, phytochems. or isolates. Desirably, the effective medicine comprises a surfactant and an aq. carrier or solvent and a nutrient. In the preferred form, the medicine comprises: Echinacea and Commiphora myrrha phytochems., **benzalkonium chloride,** a sterile water soln., and folic acid.

IT **64-19-7**, Acetic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

RN 64-19-7 HCAPLUS
CN Acetic acid (7CI, 8CI, 9CI) (CA INDEX NAME)



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L49 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:527193 HCAPLUS
DOCUMENT NUMBER: 129:166193
TITLE: Therapeutic treatment and prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix
INVENTOR(S): Setterstrom, Jean A.; Van Hamont, John E.; Reid, Robert H.; Jacob, Elliot; Jeyanthi, Ramasubbu; Boedeker, Edgar C.; McQueen, Charles E.; Tice, Thomas R.; Roberts, F. Donald; Friden, Phil
PATENT ASSIGNEE(S): United States Dept. of the Army, USA; Van Hamont, John E.; et al.
SOURCE: PCT Int. Appl., 363 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

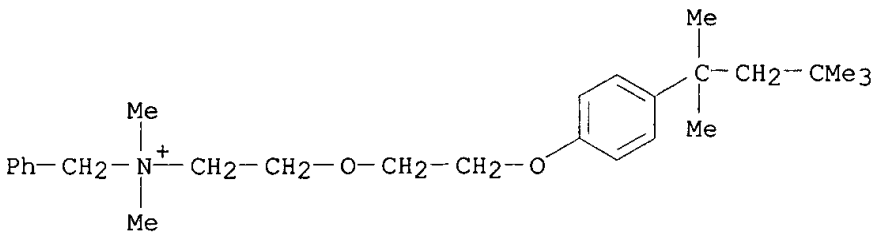
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9832427	A1	19980730	WO 1998-US1556	19980127
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6309669	B1	20011030	US 1997-789734	19970127
AU 9863175	A1	19980818	AU 1998-63175	19980127

PRIORITY APPLN. INFO.:

US 1997-789734	A	19970127
US 1984-590308	B1	19840316
US 1992-867301	A2	19920410
US 1995-446148	A2	19950522
US 1995-446149	B2	19950522
US 1996-590973	B2	19960124
WO 1998-US1556	W	19980127

AB Novel burst-free, sustained release biocompatible and biodegradable microcapsules are disclosed which can be programmed to release their active core for variable durations ranging from 1-100 days in an aq. physiol. environment. The microcapsules are comprised of a core of polypeptide or other biol. active agent encapsulated in a matrix of poly(lactide/glycolide) copolymer, which may contain a pharmaceutically acceptable adjuvant, as a blend of upcapped free carboxyl end group and end-capped forms ranging in ratios from 100/0 to 1/99.

IT **121-54-0 7447-40-7**, Potassium chloride (KCl), biological studies
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
RN 121-54-0 HCAPLUS
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

RN 7447-40-7 HCAPLUS
CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl—K

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L49 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2001 ACS
IC ICM A61K009-52
ICS A61K047-30
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1, 2, 15
ST infection microcapsule sustained release peptide copolymer
IT Trypanosoma cruzi
(Chagas' disease from; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Sarcoma inhibitors
(Kaposi's; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Spongiform encephalopathy
(agent causing; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Ragweed (Ambrosia)
(allergy; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Ameba
(amebiasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT IgG
RL: BOC (Biological occurrence); BPR (Biological process); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(ampicillin-specific; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Absidia ramosa
Actinobacillus equuli
Actinobacillus seminis
Arcanobacterium pyogenes

Aspergillus fumigatus
Babesia caballi
Brucella melitensis
Campylobacter fetus
Campylobacter fetus intestinalis
Candida albicans
Candida tropicalis
Chlamydia psittaci
Clostridium tetani
Equid herpesvirus 1
Equine arteritis virus
Escherichia coli
Gardnerella vaginalis
Human herpesvirus 1
Human herpesvirus 2
Leptospira interrogans pomona
Listeria monocytogenes
Mycobacterium tuberculosis
Mycoplasma bovigenitalium
Mycoplasma hominis
Neisseria gonorrhoeae
Pneumocystis carinii
Pseudomonas aeruginosa
Rhodococcus equi
Salmonella abortivoequina
Salmonella abortusovis
Streptococcus group B
Toxoplasma gondii
Treponema pallidum
Trichomonas vaginalis
Tritrichomonas foetus
Trypanosoma equiperdum
(antigens of; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Mycobacterium
(antimycobacterial agents; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Mouth diseases
(aphthous ulcer; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Ulcer
(aphthous; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Drugs
(appetite stimulants; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Babesia
(babesiasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Carcinoma inhibitors
(basal cell; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Natural products (pharmaceutical)
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(belladonna; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Polymers, biological studies
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(co-; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Antigens
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(colony factor; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Colon tumor inhibitors
(colorectal; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Tapeworm (Cestoda)
(cysticercosis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Polyesters, biological studies
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dilactone-based; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Gastrointestinal tract
(drugs for; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT B cell (lymphocyte)
T cell (lymphocyte)
(epitopes of; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Alkaloids, biological studies
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(ergot; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Fats and Glyceridic oils, biological studies
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(essential; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Infection
(eye; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Fasciola
(fascioliasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Filaria
(filariasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Intestinal diseases
(giardiasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Calymmatobacterium granulomatis
(granuloma inguinale from, antigens of; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Human herpesvirus 2
(herpes genitalis from; prevention of infections with a bioactive

material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Human herpesvirus 3
(herpes zoster from, antigens of; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Parvovirus
Retroviridae
(human; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Globulins, biological studies
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hyperimmune; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Eye diseases
Mouth diseases
(infection; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Artificial blood vessel
Prostheses
(infections surrounding; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Basal cell carcinoma
Colorectal tumors
Kaposi's sarcoma
Pancreatic tumors
(inhibitors; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Leishmania
(leishmaniasis from, visceral; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Infection
(mouth; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Meningitis
(neoplastic; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Retina
(neovascularization; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Nitrites
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(org.; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Antitumor agents
(pancreatic; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Paragonimus
(paragonimiasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Hormones (**animal**), biological studies
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(peptide; prevention of infections with a bioactive material

encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Brain edema
(peritumoral; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Mental disorders
(phobia; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Adhesion (biological)
(postsurgical; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT AIDS (disease)
Acinetobacter
Actinomycetales
Adenoviridae
Adrenoceptor agonists
Aerococcus
Aeromonas
Allergy inhibitors
Alzheimer's disease
Aminoglycoside antibiotics
Analgesics
Anesthetics
Angiogenesis
Angiogenesis inhibitors
Anthelmintics
Anti-infective agents
Anti-inflammatory drugs
Antiarrhythmic drugs
Antiarthritics
Antibacterial agents
Antibiotics
Anticholesteremic agents
Anticoagulants
Anticonvulsants
Antidepressants
Antidiabetic agents
Antidiarrheals
Antiemetics
Antifertility agents
Antihistamines
Antihypertensives
Antimalarials
Antimigraine drugs
Antiosteoporotic agents
Antiparkinsonian agents
Antipyretics
Antirheumatic drugs
Antiserums
Antithrombotics
Antitumor agents
Antitussives
Antiulcer agents
Antiviral agents
Appetite depressants
Arbovirus
Arcanobacterium haemolyticum
Arenavirus
Arrhythmia
Arterial restenosis
Asthma

Atopic dermatitis
Bacillus (bacterium genus)
Basal cell carcinoma
Benign prostatic hyperplasia
Biocompatibility
Blood substitutes
Bordetella
Borrelia
Breast tumor inhibitors
Breast tumors
Bronchodilators
Brucella
Cachexia
Calymmatobacterium
Campylobacter
Cardiopulmonary bypass
Cardiotonics
Cardiovascular agents
Central nervous system diseases
Cholinergic agonists
Chronic hepatitis B
Chronic hepatitis C
Clostridium
Colitis
Colorectal tumors
Contraceptives
Coronary artery thrombosis
Coronary vasodilators
Coronavirus
Corynebacterium
Cryptosporidium parvum
Cystic fibrosis
Cystitis
Cytomegalovirus
Cytotoxic agents
Decongestants
Depression (mental)
Diabetic retinopathy
Diagnosis
Diagnostic agents
Diarrhea
Dissolution rate
Diuretics
Drug bioavailability
Drug dependence
Ebola virus
Echinococcus
Electrolytes (biological)
Emulsifying agents
Emulsions (drug delivery systems)
Enterobacteriaceae
Enterococcus
Enterovirus
Epitopes
Erysipelothrix
Expectorants
Filaricides
Filovirus
Flavobacterium
Freeze drying

Fungicides
Gardnerella
Graft vs. host reaction
Gram-negative bacteria
Gram-positive bacteria (Firmicutes)
Growth hormone deficiency
Haemophilus
Haemophilus ducreyi
Helicobacter
Hepatitis A virus
Hepatitis B virus
Hepatitis C virus
Hepatoma
Hepatoma inhibitors
Human herpesvirus 3
Human herpesvirus 4
Human immunodeficiency virus
Human immunodeficiency virus 1
Human parainfluenza virus
Human poliovirus
Huntington's disease
Hypercholesterolemia
Hypnotics and Sedatives
Immunization
Immunomodulators
Immunostimulants
Impotence
Infection
Influenza virus
Inhalants (drug delivery systems)
Injections (drug delivery systems)
Insulin dependent diabetes mellitus
Kidney diseases
Lactococcus
Legionella
Leptospira
Leuconostoc
Listeria
Macrolide antibiotics
Measles virus
Melanoma
Melanoma inhibitors
Microcapsules (drug delivery systems)
Micrococcus
Microspheres (drug delivery systems)
Molluscum contagiosum virus
Moraxella
Multiple sclerosis
Mumps virus
Muscle relaxants
Narcotics
Nasal drug delivery systems
Neisseria
Nervous system agents
Non-insulin-dependent diabetes mellitus
Nonsteroidal anti-inflammatory drugs
Nutrients
Oil-in-water emulsions
Opioid antagonists
  Oral drug delivery systems

Osteoarthritis
Osteomyelitis
Osteoporosis
Ovarian tumor inhibitors
Ovarian tumors
Pancreatic tumors
Panic disorder
Papillomavirus
Parasiticides
Parkinson's disease
Pediococcus
Periodontitis
Planococcus (bacterium)
Plesiomonas
Pneumonia
Poxviridae
Prodrugs
Prostatic tumor inhibitors
Prostatic tumors
Pseudomonas
Psoriasis
Psychotropics
Rabies virus
Rectal drug delivery systems
Reoviridae
Respiratory syncytial virus
Rheumatoid arthritis
Rhinovirus
Rhodococcus
Rotavirus
Rubella virus
Salmonella typhi
Sexually transmitted diseases
Shigella boydii
Shigella dysenteriae
Shigella flexneri
Shigella sonnei
Skin infection
Small-cell carcinoma (lung)
Small-cell carcinoma inhibitors (lung)
Spasmolytics
Spirillum
Staphylococcus
Stomatococcus
Streptobacillus
Streptococcus
Stroke
Thrombosis
Topical drug delivery systems
Tranquilizers
Transdermal drug delivery systems
Treponema
Vaccines
Vaginal drug delivery systems
Vasodilators
Vibrio
Vibrio cholerae
Water-in-oil emulsions
Wolinella succinogenes
Yersinia

.beta.-Lactam antibiotics
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Alkaloids, biological studies
Antibodies
Antigens
Enzymes, biological studies
Essential amino acids
Estrogens
Glycolipids
Glycopeptides
Growth factors (**animal**)
Lipopolysaccharides
Peptides, biological studies
Pheromones (**animal**)
Progestins
Prostaglandins
Proteins (general), biological studies
Steroids, biological studies
Sulfonamides
Tetracyclines
Vitamins
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Biodegradable polymers
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Hepatitis B surface antigens
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Sustained release drug delivery systems
(programmable; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Acrosome
(**proteinase** of; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Pilus
(**proteins**; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Scalp
(psoriasis of; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Retinopathy
(retinal neovascularization; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Neovascularization
(retinal; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT Schistosoma
(schistosomiasis from; prevention of infections with a bioactive

material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Contraceptives
(spermicidal; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Appetite
(stimulants; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Strongylus
(strongylodiasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Bile
(therapy with; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Muscle diseases
(torticollis, spasmodic; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Toxocara
(toxocariasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Toxoplasma gondii
(toxoplasmosis from; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Head injury
(trauma; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Trichinella
(trichinellosis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Trichomonas
(trichomoniasis; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT Gastroenteritis
(virus causing; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT 9005-49-6, Heparin, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(neutralization of; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT 9001-60-9, Lactate dehydrogenase 37326-33-3, Hyaluronidase
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(of sperm; prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)
IT 50-06-6, Phenobarbital, biological studies 50-12-4, Mephenytoin 50-18-0, Cyclophosphamide 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-28-2, 17.beta.-Estradiol, biological studies 50-33-9, Phenylbutazone, biological studies 50-52-2, Thioridazine 50-55-5, Reserpine 50-78-2, Aspirin 51-55-8, Atropine, biological studies 52-24-4, Thiotepa 52-76-6, Lynestrenol 53-03-2, Prednisone 53-16-7, Estrone, biological studies 53-86-1, Indomethacin 54-11-5, Nicotine 55-48-1, Atropine sulfate 55-63-0, Nitroglycerin 55-86-7, Nitrogen mustard 56-53-1, Diethyl stilbestrol 56-75-7, Chloramphenicol 57-27-2, Morphine, biological studies 57-33-0, Sodium pentobarbital 57-42-1, Meperidine 57-53-4, Meprobamate 57-63-6, Ethinyl estradiol 57-85-2, Testosterone propionate 57-92-1, Streptomycin a, biological studies 58-08-2, Caffeine, biological studies 58-14-0, Pyrimethamine 58-22-0 58-25-3, Chlordiazepoxide 58-39-9, Perphenazine 58-73-1,

Diphenhydramine 59-01-8, Kanamycin a 59-05-2, Methotrexate 59-92-7, L-Dopa, biological studies 61-33-6, Penicillin g, biological studies 67-20-9, Nitrofurantoin 68-22-4, Norethisterone 68-23-5, Norethynodrel 69-09-0, Chlorpromazine hydrochloride 69-53-4, Ampicillin 69-72-7D, Salicylic acid, derivs. 71-58-9, Medroxyprogesterone acetate 72-33-3, Mestranol 76-57-3, Codeine 79-57-2, Oxytetracycline 79-64-1, Dimethisterone 91-81-6, Tripelennamine 103-90-2, Acetaminophen 113-15-5, Ergotamine 114-07-8, Erythromycin 114-49-8, Hyoscine hydrobromide **121-54-0** 122-09-8, Phentermine 125-29-1, Dihydrocodeinone 125-71-3, Dextromethorphan 127-48-0, Trimethadione 128-62-1, Noscapine 145-94-8, Chlorindanol 148-82-3, Melphalan 155-41-9, Methscopolamine bromide 288-32-4D, Imidazole, derivs. 297-76-7, Ethynodiol diacetate 302-22-7, Chlormadinone acetate 305-03-3, Chlorambucil 309-43-3, Sodium secobarbital 315-30-0, Allopurinol 434-03-7, Ethisterone 439-14-5, Diazepam 443-48-1, Metronidazole 469-62-5 471-34-1, Calcium carbonate, biological studies 497-19-8, Sodium carbonate, biological studies 523-87-5, Dimenhydrinate 546-93-0, Magnesium carbonate 578-66-5D, 8-Aminoquinoline, derivs. 578-68-7D, 4-Aminoquinoline, derivs. 595-33-5, Megestrol acetate 738-70-5, Trimethoprim 846-50-4, Temazepam 1397-89-3, Amphotericin b 1397-94-0, Antimycin a 1403-66-3, Gentamicin 1404-26-8, Polymyxin b 1404-90-6, Vancomycin 1406-05-9D, Penicillin, derivs. 4696-76-8, Kanamycin b 5588-33-0, Mesoridazine 5633-18-1, Melengestrol 5786-21-0, Clozapine 5800-19-1, Metiapine 6533-00-2, Norgestrel **7447-40-7**, Potassium chloride (KCl), biological studies 8063-07-8, Kanamycin 9000-83-3, Atpase 9000-92-4, Amylase 9001-62-1, Lipase 9001-63-2, Muramidase 9001-67-6, Neuraminidase 9001-78-9, Alkaline phosphatase 9001-99-4, Ribonuclease 9002-02-2, Succinic acid dehydrogenase 9002-07-7, Trypsin 9004-07-3, Chymotrypsin 9004-10-8, Insulin, biological studies 9025-82-5, Phosphodiesterase 9029-12-3, Glutamic acid dehydrogenase 9035-74-9, Glycogen phosphorylase 9046-27-9, .gamma.-Glutamyltranspeptidase 9079-67-8 10118-90-8, Minocycline 11111-12-9, Cephalosporins 13292-46-1, Rifampin 14271-04-6 21645-51-2, Aluminum hydroxide, biological studies 22232-71-9, Mazindol 24730-10-7, Dihydroergocristine methanesulfonate 25447-66-9 26780-50-7, Poly(lactide co-glycolide) 26787-78-0, Amoxicillin 30516-87-1, Azt 32986-56-4, Tobramycin 35189-28-7, Norgestimate 37205-61-1, **Proteinase** inhibitor 37517-28-5, Amikacin 53678-77-6D, Muramyl dipeptide, derivs. 53994-73-3, Cefaclor 55268-75-2, Cefuroxime 61036-62-2, Teicoplanin 64221-86-9, Imipenem 80738-43-8, Lincosamide 81103-11-9, Clarithromycin 82419-36-1, Ofloxacin 85721-33-1, Ciprofloxacin
RL: BPR (Biological process); DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT 104339-66-4, Histatin 5 (human parotid saliva) 127716-52-3, Histatin 9 (human parotid saliva) 174270-18-9, 5-25-Histatin 6 (human parotid saliva) 186138-55-6 186138-60-3 194017-97-5 211118-03-5
RL: BPR (Biological process); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT 9002-60-2, Adrenocorticotropin, biological studies 9007-12-9, Calcitonin 9034-40-6, Lhrh 62229-50-9, Epidermal growth factor 123781-17-9, Histatin
RL: BPR (Biological process); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);

USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT 9005-64-5, Tween 20 9005-65-6, Tween 80 9005-67-8, Tween 60
106392-12-5, Pluronic
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT 75-09-2, uses
RL: NUU (Other use, unclassified); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

IT 146553-69-7 146553-70-0 146553-71-1 146553-72-2 146553-73-3
146553-74-4 146553-75-5 146553-76-6 146553-77-7 146553-78-8
146553-81-3 146553-82-4 146553-83-5 146553-85-7 146553-86-8
146553-87-9 146553-88-0 146553-89-1 146553-90-4 146553-91-5
146553-92-6 164583-46-4 164583-50-0 164583-51-1 211118-14-8
211118-17-1
RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(prevention of infections with a bioactive material encapsulated within a biodegradable-biocompatible polymeric matrix)

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L49 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:812194 HCAPLUS
DOCUMENT NUMBER: 128:66506
TITLE: Complex preparations containing betaine
INVENTOR(S): Tomic, Dobrivoje
PATENT ASSIGNEE(S): Tomifarm S.r.L., Italy; Tomic, Dobrivoje
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9746246	A1	19971211	WO 1997-EP2849	19970602
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19622708	A1	19971211	DE 1996-19622708	19960605
DE 19648232	A1	19980723	DE 1996-19648232	19961121
AU 9731709	A1	19980105	AU 1997-31709	19970602
EP 914138	A1	19990512	EP 1997-927099	19970602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9709539	A	19990810	BR 1997-9539	19970602
JP 2000514414	T2	20001031	JP 1998-500213	19970602

PRIORITY APPLN. INFO.:
DE 1996-19622708 A 19960605
DE 1996-19648232 A 19961121
WO 1997-EP2849 W 19970602

AB Prepns., esp. for topical use, contg. (a) ionic compds. at high osmotic pressure, (b) astringent, bonding, and adhesive agents, (c) optional lipotropic, antimycotic, antiinflammatory, and plant-derived components, and (d) betaine are provided for rapid, effective, synergistic improvement of cellular function and metab., physiol. processes, microcirculation, and immunity, prevention and treatment of processes causing tissue damage, and supply of essential mineral nutrients, vitamins, enzymes, etc. Betaine, applied topically in these prepns., penetrates deep into the tissues where it stimulates cellular and physiol. processes. Thus, a topical prepn. for treatment of cellulite contained betaine 0.1, Hamamelis 0.1, glycerin 2.0, NaCl 1.0, MgCl2 0.08, KCl 0.08, Na2HPO4.12H2O 0.6, agar 0.2, tannin 1.0, peppermint oil 0.05, Calendula 0.1, and H2O to 100.0 wt.%.

IT **7447-40-7**, Potassium chloride, biological studies
7647-14-5, Sodium chloride, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complex pharmaceutical prepns. contg. betaine)

RN 7447-40-7 HCAPLUS
CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl—K

RN 7647-14-5 HCAPLUS
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl—Na

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L49 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2001 ACS
IC ICM A61K035-78
ICS A61K033-14; A61K031-205; A61K033-42
CC 63-6 (Pharmaceuticals)
ST betaine topical cell function metab; electrolyte astringent betaine topical pharmaceutical; cellulite treatment topical betaine
IT Skin preparations (pharmaceutical)
(astringents; complex pharmaceutical prepns. contg. betaine)
IT Adhesives
(biol.; complex pharmaceutical prepns. contg. betaine)
IT Skin
(cellulite; complex pharmaceutical prepns. contg. betaine)
IT Anti-inflammatory drugs
Antibacterial agents
Calendula
Capsules (drug delivery systems)
Creams (drug delivery systems)
Echinacea angustifolia
Emulsions (drug delivery systems)
Fungicides
Gels (drug delivery systems)
Hamamelis
Immunostimulants
Joint (anatomical)
Metabolism (**animal**)
Microcirculation
Moisturizers (cosmetics)
Muscle
Oat
Ointments (drug delivery systems)
Oral drug delivery systems
Parenteral solutions (drug delivery systems)
Pigments (biological)
Powders (drug delivery systems)
Skin
Solutions (drug delivery systems)
Sprays (drug delivery systems)
Surfactants
Tablets (drug delivery systems)
Tendon
Topical drug delivery systems
Urtica dioica
(complex pharmaceutical prepns. contg. betaine)
IT Acids, biological studies
Alkylbenzyldimethylammonium chlorides

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complex pharmaceutical prepns. contg. betaine)

=> d ibib abs hitstr 1-14

L45 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:228755 HCAPLUS
DOCUMENT NUMBER: 134:242750
TITLE: Antimicrobial and anti-inflammatory endovascular (cardiovascular) stent
INVENTOR(S): Lee, Clarence C.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021229	A1	20010329	WO 2000-US40979	20000922

W: AU, CA, CN, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRIORITY APPLN. INFO.: US 1999-404577 A 19990923

AB An antimicrobial and anti-inflammatory endovascular (cardiovascular) stent includes base material for the stent and an incorporated antimicrobial agent for the treatment of diseased blood vessel in such way that the antimicrobial agent is slowly released into the disease blood vessel wall which is in direct contact with the stent to **treat** the blood vessel tissue or the plaque by both killing the disease-causing microbe(s) and relieving the inflammation. The stent can slowly release the antimicrobial and anti-inflammatory agent(s) directly to the diseased tissue or the plaque that is infected by microbes. Consequently, the inflammation is relieved by the anti-inflammatory agent and the inflammation causing microbes are controlled or killed by the antimicrobial agent. A sterile, surgical steel, endovascular stent is aseptically dipped into a sterile soln. of 20% **benzalkonium chloride**, 5% hydrocortisone and 75% ethanol soln.

REFERENCE COUNT: 4
REFERENCE(S):
(1) Cedars Sinai Medical Center; WO 9013332 A 1990
(2) Domb, A; US 5762638 A 1998
(3) Medtronic Inc; WO 9112779 A 1991
(4) Sheng-Ping, Z; US 5869127 A 1999 HCAPLUS

L45 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:452407 HCAPLUS
DOCUMENT NUMBER: 132:63600
TITLE: Potential for dietary phytase to improve the nutritive value of canola **protein** concentrate and decrease phosphorus output in rainbow trout (Oncorhynchus mykiss) held in 11.degree.C fresh water
AUTHOR(S): Forster, Ian; Higgs, Dave A.; Dosanjh, Bakhshish S.; Rowshandeli, Mahmoud; Parr, Jim
CORPORATE SOURCE: Pacific Region, Science Branch, Department of Fisheries and Oceans, West Vancouver Laboratory, Vancouver, BC, V7V 1N6, Can.
SOURCE: Aquaculture (1999), 179(1-4), 109-125
CODEN: AQCLAL; ISSN: 0044-8486
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The use of dietary phytase to improve the nutritive value of canola **protein** conc. (**CPC**) for rainbow trout and to minimize P discharge into the environment was studied using 8 diets and mean water temp. of 11.0.degree.C. LT-anchovy meal (AM) provided 89% **protein** in the basal diet, whereas in the remaining diets 59% **protein** was from **CPC** replacing AM **protein**. Four **CPC** diets were supplemented with phytase (Natuphos) at 0, 500, 1500, or 4500 units (FTU)/kg **feed** together with 4505 mg P/kg. Two **CPC** diets contained 1500 FTU/kg and 0 or 2253 mg supplemental P/kg. The seventh **CPC** diet contained no phytase or supplemental P. A com. trout **feed** served as an industry control. All diets were fed to trout with initial body wt. of 17.9 g to satiation daily for 84 days. The level of phytic acid degrdn. and the apparent availability of dietary P were detd. Fish fed the **CPC** diets, regardless of the phytase and P levels, had growth rates, **feed** efficiencies, and **protein** utilization comparable to controls. There was a clear pos. dose-response effect of phytase on dietary phytate digestibility and the P availability was improved with the highest level of phytase. Thus, dietary phytase can improve the nutritive quality of **CPC** for rainbow trout and the availability of phytate P.

REFERENCE COUNT: 31

REFERENCE(S):
(3) Engelen, A; J AOAC Int 1994, V77, P760 HCAPLUS
(5) Hajen, W; Aquaculture 1993a, V112, P321 HCAPLUS
(6) Hajen, W; Aquaculture 1993b, V112, P333 HCAPLUS
(9) Higgs, D; Aquaculture 1992, V105, P175 HCAPLUS
(10) Higgs, D; Finfish Nutrition and Fish Feed Technology 1979, V2, P191 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:560719 HCAPLUS
DOCUMENT NUMBER: 127:233797
TITLE: Effect of feeding Muscovy ducklings different **protein** sources: performance, .omega.-3 fatty acid contents, and acceptability of their tissues
AUTHOR(S): El-Deek, Ahmed A.; Barakat, Mona O.; Attia, Youssef A.; El-Sebeay, Ashraf S.
CORPORATE SOURCE: Department of Poultry Production, Faculty of Agriculture, Alexandria University, Alexandria, Egypt
SOURCE: J. Am. Oil Chem. Soc. (1997), 74(8), 999-1009
CODEN: JAOCA7; ISSN: 0003-021X
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB One hundred Muscovy ducklings, 5-wk-old, from each gender were assigned to five dietary treatments. Each treatment of each sex contained two replicates of 10 ducklings each. Ducks were fed, from 4-9 wk of age, five isonitrogenous diets that differed in **protein** source, i.e., com. **protein** conc. (**CPC**), soybean meal, meat meal (MM), herring fish meal (HFM), and mixed herring fish and meat meals (HFM + MM). At the end of the expt., four ducks per treatment were slaughtered for carcass evaluation and the fatty acid profiles of their meat, adipose tissue, and plasma. Final body wt. of both sexes showed no difference among **protein** sources, although males fed **CPC** or MM diets had the largest wt. gain. No differences in **feed** consumption and conversion between sexes were shown, although differences in .omega.-3 fatty acid consumption due to **protein** source were significant. Feeding fish meal reduced the sensory acceptance of meat, whereas the plant **protein** diet improved it. Total lipid and cholesterol contents of the meat of males showed no differences between

protein sources. Correlation between .omega.-3 fatty acid consumption and plasma cholesterol was neg. (r = 0.91; P = 0.03). Moreover, correlation between plasma cholesterol and plasma lipid was pos. (r = 0.97; P = 0.01). Feeding fish meal enriched total unsatd. fatty acid of adipose tissues, .omega.-3 fatty acid of adipose and meat tissues, and total unsatd. fatty acid of thigh meat. Total unsatd. fatty acid and .omega.-3 fatty acid of blood plasma from females were also enriched by feeding fish meal-contg. diets.

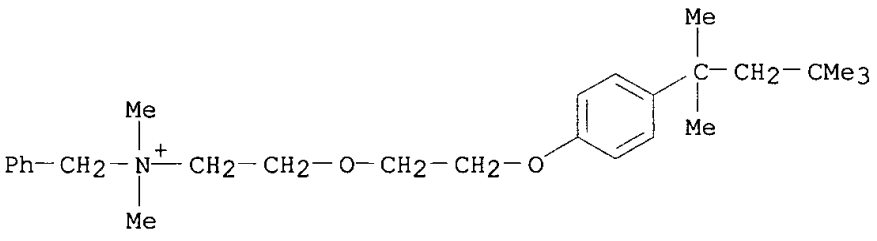
L45 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:134305 HCAPLUS
DOCUMENT NUMBER: 124:174275
TITLE: Method of manipulating fermentation enzyme activity
INVENTOR(S): Shelford, James A.; Kamande, George
PATENT ASSIGNEE(S): Univ. of British Columbia Univ.-Indus. Liaison Office, Can.
SOURCE: Can. Pat. Appl., 54 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2126895	AA	19951229	CA 1994-2126895	19940628

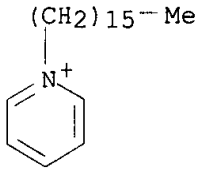
AB Enzyme activity in anaerobic fermn. of animal **feed** or silage is manipulated by adding to the **feed** or silage agents that restrict **proteinase** activity and/or enhance cellulase activity. More specifically, the enzymic control agent may be a surfactant or an oxidizing agent or derivs. thereof or a combination of surfactant and oxidizing agents.

IT **121-54-0, Benzethonium chloride**
123-03-5, Cetylpyridinium chloride
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(anaerobic fermn. of animal **feed** or silage is manipulated by oxidants or surfactants that regulate **proteinase** and cellulase activity)

RN 121-54-0 HCAPLUS
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]-, chloride (9CI) (CA INDEX NAME)



RN 123-03-5 HCAPLUS
CN Pyridinium, 1-hexadecyl-, chloride (8CI, 9CI) (CA INDEX NAME)



● Cl⁻

L45 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:530324 HCAPLUS
DOCUMENT NUMBER: 117:130324
TITLE: Search for effective **protein** combination with crab **protein** for the larval kuruma prawn Penaeus japonicus
AUTHOR(S): Koshio, Shunsuke; Kanazawa, Akio; Teshima, Shinichi
CORPORATE SOURCE: Fac. Fish., Kagoshima Univ., Kagoshima, 890, Japan
SOURCE: Nippon Suisan Gakkaishi (1992), 58(6), 1083-9
CODEN: NSUGAF; ISSN: 0021-5392
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In a series of studies to search for an optimal **protein** source for larval P. japonicus, feeding trials were conducted to det. the optimal combination of several **protein** sources with crab **protein** conc. (**CPC**) on the larval development, growth, and survival of P. japonicus when fed on microbound diets. Although the addn. of squid meal, brown fish meal, white fish meal and krill meal to **CPC** improved larval performance compared to the single use of **CPC**, the magnitude of improvement was not as great as that by casein and soybean **protein** (SBP). In the diet contg. both **CPC** and squid meal as the **protein** source, more **CPC** in the diet produced a poorer performance of larvae, particularly at low levels of **protein**. Besides casein the best combination for larval development was **CPC** and SBP. The development, growth, and survival of larvae did not deteriorate when fed on **CPC**-SBP diets contg. less than 30% of SBP. This study demonstrates that plant **protein** like SBP rather than squid meal as an addnl. source to **CPC** is available for good development, growth, and survival of larval prawns.

L45 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:447221 HCAPLUS
DOCUMENT NUMBER: 117:47221
TITLE: Nutritional evaluation of dietary soybean **protein** for juvenile freshwater prawn Macrobrachium rosenbergii
AUTHOR(S): Koshio, Shunsuke; Kanazawa, Akio; Teshima, Shinichi
CORPORATE SOURCE: Fac. Fish., Kagoshima Univ., Kagoshima, 890, Japan
SOURCE: Nippon Suisan Gakkaishi (1992), 58(5), 965-70
CODEN: NSUGAF; ISSN: 0021-5392
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A feeding trial was carried out to evaluate the nutritive value of soybean

protein (SBP) for juvenile M. rosenbergii (0.1 g mean initial wet wt.) compared with crab **protein** conc. (**CPC**). **Protein** contents of the test diets ranged 30-55%, with an interval of .apprx.7%, and the dietary energy was kept const. (4.3 kcal/g) by adjusting carbohydrate contents (.alpha.-starch and dextrin). Although the wt. gain of **CPC** diet groups seemed to be higher than that of SBP diet groups at each **protein** level, no statistical significance was detected between SBP and **CPC** diet groups, with the exception of the prawns fed on the diet contg. the 2nd highest **protein** level (.apprx.47%). There was tendency for **feed** conversion efficiency (FCE) and **protein** efficiency ratio (PER) of SBP diet groups to be better than those of **CPC** diet groups in each **protein** level except for prawns fed 47% **protein**. Thus, SBP can be a useful **protein** source for Macrobrachium diets. The **protein** levels tested did not affect the growth, FCE, or PER in either **CPC** or SBP diet groups, which indicates the possibility of **protein** sparing by carbohydrate in M. rosenbergii. The proximate compn. and amino acid pattern of the whole body were not affected by **protein** sources or levels.

L45 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:457575 HCAPLUS
DOCUMENT NUMBER: 113:57575
TITLE: Semi-micro method for the quantitative determination of gellan gum in food products
AUTHOR(S): Graham, Horace D.
CORPORATE SOURCE: Dep. Chem., Univ. Puerto Rico, Mayaguez, 00709, P. R.
SOURCE: Food Hydrocolloids (1990), 3(6), 435-45
CODEN: FOHYES; ISSN: 0268-005X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A reagent consisting of 0.1% thiourea in concd. H2SO4 and cysteine.HCl at a final concn. of 600 .mu.g/mL was used to det. gellan gum in pudding mix, salad dressings, dog food, orange drink mix, milk, milk products, and pineapple pie filling in the presence of other food hydrocolloids. **Proteins** and starch were removed by digestion with papain and amyloglucosidase, resp. Gellan gum and other hydrocolloids in the clarified digest were pptd. with **cetylpyridinium chloride** (**CPC**) and the mixed CP-hydrocolloid complex trapped on a Celite column, washed to remove sol. sugars and the gellan gum eluted with boiling 2% Na hexametaphosphate. The color developed by reacting an aliquot of the eluate with the reagent was measured at 455 nm and the amt. present detd. from a std. curve. The rhamnose moiety of the gum gives the specific color response. Max. color development occurred after 4 h at 26.degree. and remained relatively const. for 24 h. Using product blanks the av. recovery from milk was 90% with a reproducibility of 2.6% for high-clarity gellan gum. With low-clarity gellan gum the av. recovery was 86.4%, with a reproducibility of 3%. Pudding, pie fillings (high starch), and salad dressings (high oil content) gave lower recoveries.

L45 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1978:49051 HCAPLUS
DOCUMENT NUMBER: 88:49051
TITLE: Contamination of **feeds** and their components by aflatoxin B1
AUTHOR(S): Strzelecki, E. L.; Gasiorowska, U. W.
CORPORATE SOURCE: Vet. Hyg. Res. Stn., Gdansk, Pol.
SOURCE: Zesz. Probl. Postepow Nauk Roln. (1977), 189, 117-24
CODEN: ZPPRAW

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Aflatoxin B1 (I) [1162-65-8] contamination was investigated in 448 samples of **feed**, using the SG method (Strzelecki, in press) and the **CPC** minicolumn technique (FDA, 1972). By the SG method, 97.3% of the cattle and sheep **feed**, 98.3% of the poultry **feed**, and 88.6% of the swine **feed** were I-free. **Protein** concentrates and additives were .apprx.75% I-free. By SG method the levels of I detected were 0.08-2.0 ppm. By the **CPC** method 67.4% of the cattle and sheep **feed**, 75.7% of the poultry **feed** and 52% of swine **feed** were I-free. By the **CPC** method, the levels of I found were .ltoreq.0.6 ppm. Apparently, the **CPC** minicolumn technique is effective for detecting very small amts. (.ltoreq.0.6 ppm) of I in **feed**, whereas by the SG method .gtoreq.0.6 ppm I can be detected.

L45 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1977:70186 HCAPLUS
DOCUMENT NUMBER: 86:70186
TITLE: Quantitative determination of carrageenan in infant formulas
AUTHOR(S): Kleckner, Jean; Rearick, Norman; Thomson, W. A. B.
CORPORATE SOURCE: Ross Lab., Columbus, Ohio, USA
SOURCE: J. Food Sci. (1977), 42(1), 252-4
CODEN: JFDSAZ
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An accurate and precise method was developed for the detn. of carrageenan [9000-07-1] in milk-based infant formulas. Following digestion of **protein** with papain, carrageenan was pptd. with **Hyamine 1622**, a quaternary ammonium salt. The ppt. was washed to remove lactose, dissolved in H2SO4, and the carrageenan assayed by color development with the phenol-sulfuric reagent. Filtrations and washings were facilitated with Millipore filters. Carrageenan recovery of spiked formulas averaged 99.67% for ready-to-**feed** products and 95.74% for concd. products, which, resp., contained 7.1 and 14.2% lactose. To obtain these accuracies the ref. carrageenan must be identical to the carrageenan in the product.

L45 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1976:575890 HCAPLUS
DOCUMENT NUMBER: 85:175890
TITLE: Importance of supplementing animals with copper and cobalt in improving their productivity
AUTHOR(S): Bagdasaryan, A. G.
CORPORATE SOURCE: Erevan. Zootekh. Vet. Inst., Yerevan, USSR
SOURCE: Tr. Stavrop. S-kh. Inst. (1974), 37(4), 71-5
CODEN: TSTSAA
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Calves given CuSO4 35 and CoCl2 8 mg/head/day for 3 months had av. wt. gains of 137.6 kg (controls 113.5 kg) and had higher levels of Cu, Co, and albumin (155.9 .mu.**g**%, **12**.6 .mu.g%, 4.1% of **protein**; controls 104.3, 11.9, 3.5) and lower .alpha. and .beta.-globulin levels (0.90 and 0.51% of **protein**; controls 1.00 and 0.93) in their blood serum. The Cu and Co levels in **feed** and water from the Armenian SSR were deficient, making the above supplements necessary.

L45 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1966:405387 HCAPLUS
DOCUMENT NUMBER: 65:5387
ORIGINAL REFERENCE NO.: 65:1027f-h
TITLE: Azure A-Schiff, Alcian blue, HIO4-Schiff, naphthol yellow S. A sequential staining method for paraffin sections
AUTHOR(S): Benson, Don G., Jr.
CORPORATE SOURCE: Louisiana State Univ., Baton Rouge
SOURCE: Stain Technol. (1966), 41(3), 155-8
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Paraffin sections from tissue fixed 4-12 hrs. in 10% formalin contg. 0.5% **cetylpyridinium chloride**, and washed 2 hrs., were stained as follows: (1) Hydrolyze in 5N HCl at room temp. for 8.5-9 min., or use standard Feulgen hydrolysis at 60.degree.. (2) Stain in azure A-Schiff, 0.5% in bisulfite bleach (1N HCl, 5; 10% Na2S2O5, 5; and distilled H2O 90 parts by volume) for 10 min. (3) Place in bisulfite bleach 2 changes, 2 min. each; wash in water, 1-2 min. (4) Stain in Alcian blue (0.1% in 0.01N HCl, pH 2.0) for 10 min. (5) Place in 0.01N HCl for 2-3 min.; wash in water for 1-2 min. (6) Oxidize in 0.5% HIO4 for 5 min.; wash in water, 1-2 min. (7) Stain in Schiff's leucofuchsin, 10 min. (8) **Treat** with bisulfite bleach as in step 3; wash in running water, 10 min. (9) Stain in naphthol yellow S (0.01% in 1% acetic acid) for 1-2 min. (10) Place in 1% acetic acid for 2 min., dehydrate in tertiary butanol, clear and cover. Result: DNA is deep blue; acidic mucins are light blue; neutral polysaccharides, red to magenta; and **proteins**, yellow. Proper timing of the hydrolysis for the Feulgen reaction is the most critical step. Overhydrolysis results in green nuclei (staining by naphthol yellow S),, whereas purplish nuclei are the results of insufficient hydrolysis.

L45 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1966:13378 HCAPLUS
DOCUMENT NUMBER: 64:13378
ORIGINAL REFERENCE NO.: 64:2483f-h
TITLE: A study of the essential amino acid requirements of growing young pigs
AUTHOR(S): Borts, I. L.; Zhurba, V. A.
SOURCE: Razved., Kormlenie, Otkorm i Soderzhanie Svinei (Kiev; Urozhai) Sb. (1964) 149-61
From: Ref. Zh., Biol. Khim. 1965, Abstr. No. 12F1725.
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Expts. were done over a 246-day period on young pigs (up to 10 months). The av. daily deposition of the principal amino acids in the body of the pigs was not directly correlated with the amt. taken in with the food, e.g., with a lysine intake of 13.89 g., the deposition was 29.44%, with 20.53 g. 52.97%, with 42.06 **g. 12**.74%, and with 57.87 g. 34.94%. The largest effect on entrapment of individual amino acids was their proportion in the **proteins** of the **feed.** The amino acid compn. of the total **proteins** changed insignificantly with age. The requirements for individual amino acids in pigs up to 10 months of age, per kg. live wt., were: lysine, arginine, and histidine 0.4 g., leucine 0.6 g., methionine and threonine 0.2 g., phenylalanine, valine, and tryptophan 0.3 g., tyrosine 0.1 g.

L45 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1958:72663 HCAPLUS
DOCUMENT NUMBER: 52:72663
ORIGINAL REFERENCE NO.: 52:12946b-h

TITLE: Separation of .alpha.-amylase from malt extract
AUTHOR(S): Ikemiya, Masayuki
CORPORATE SOURCE: Kyoto Univ.
SOURCE: Bull. Inst. Chem. Research, Kyoto Univ. (1958), Volume Date 1957, 35, 89-103
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Sepn. of .alpha.- and .beta.-amylases from malt ext. was first conducted by the method of Ohlsson (C.A. 24, 3521) but it was found that the sepn. was incomplete and accompanied considerable loss. An improvement was made by the use of a synthetic detergent, **alkyldimethylbenzylammonium chloride** (**Osvan**). Pure .alpha.-and .beta.-amylases were placed in 0.05% **Osvan** soln. for 30 min. at 20.degree. and then heated for 5 min. at temp. between 40.degree. and 70.degree.. .beta.-Amylase was found to be considerably thermolabile, whereas .alpha.-amylase was thermostable; heating to 50.degree. destroyed 80% of the activity of .beta.-amylase while .alpha.-amylase remained almost intact. A technique to sep. .alpha.-amylase from mixts. of .alpha.- and .beta.-amylases was presented: **treat** the mixt. at 50.degree. for 10 min. in 0.1% **Osvan** soln. and add CaCl2 to final 0.1M concn. This treatment completely inhibited the .beta.-amylase activity only. Other cationic detergents could be used in place of **Osvan**. When malt ext. contained high concns. of .beta.-amylase, heating at 55.degree. was recommended; the effect of large amts. of **protein** and starch that protected .beta.-amylase from the action of detergents was also removed by heating at 55.degree.. Sepn. of .alpha.-amylase from .beta.-amylase was also achieved by keeping the mixt. in a soln. contg. 0.1% **Osvan** and 0.1M CaCl2 at 30.degree. for 20 min. Application of this method to malt and barley exts. was particularly effective when the concn. of the exts. was relatively low. **Proteins** and starches, particularly amylose, interfered in the sepn. The inhibition rates of various amylases by **Osvan**-CaCl2 soln. at 50.degree. for 10 min. and at 30.degree. for 20 min. at pH 9.0, resp., were: malt .alpha.-amylase 0, 0; Taka-.alpha.-amylase 0, 0; salivary .alpha.-amylase 0, 0; malt .beta.-amylase 100, 100; soybean .beta.-amylase 40, 90; sweet potato .beta.-amylase 70, 97%. .alpha.- and .beta.-Amylases after treatment with **Osvan**-CaCl2 soln. showed different absorption spectra in ultraviolet region. The affinity of **Osvan** to .beta.-amylase was found larger than that to .alpha.-amylase. Under the same conditions, the amt. of **Osvan** combined with .beta.-amylase was approx. 3 times that with .alpha.-amylase. Ca ion reduced the combination of **Osvan** with .alpha.-amylase and augmented that with .beta.-amylase. Estn. of the rate of denaturation of the **Osvan**-CaCl2-treated .alpha.- and .beta.-amylases by the proteolysis technique also indicated no inactivation of the former and 100% inactivation of the latter by the treatment. Sepn. of Taka-.alpha.-amylase from accompanying malt .alpha.-amylase was achieved satisfactorily by treating the mixt. with 0.25% Na dodecylsulfate at 30.degree. and pH 4.5 for 15 min. Under these conditions malt .alpha.-amylase was inhibited completely, whereas Taka-.alpha.-amylase retained its initial activity. In 0.04% **Osvan** soln. heating the mixt. at 40.degree. and pH 6.5 for 15 min. destroyed the activity of Taka-.alpha.-amylase, while it destroyed the activity of malt .alpha.-amylase only by 10%.

L45 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1950:41088 HCAPLUS
DOCUMENT NUMBER: 44:41088
ORIGINAL REFERENCE NO.: 44:7924a-c
TITLE: A method for the characterization of the terminal

carboxyl groups in **proteins**. Application to insulin
AUTHOR(S): Fromageot, Claude; Jutisz, Marian; Meyer, Denise; Penasse, Lucien
SOURCE: Compt. rend. (1950), 230, 1905-6
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Suspend 200-300 mg. of cryst. insulin in 50 ml. of N-ethylmorpholine (I) contg. 0.02% **Zephiran**. Add 300 ml. of Li Al hydride in 50 ml. of I, drop by drop, with vigorous agitation, in an atm. of N. Decomp. the excess hydride with a little water, filter, and remove solvent from the ppt. by washing with Et2O. Hydrolyze with 20-30 ml. of 6 N HCl for 24 hrs., conc. under vacuum, and make alk. with NaOH. Filter, wash the ppt. with water, and ext. the combined filtrate with Et2O for 30 hrs. Evap. the ext., take up in dry Et2O, evap., and dissolve in a few drops of EtOH. Develop paper chromatograms with a mixt. of 77 vols. of BuOH, 5 of HOAc, and 18 of water. **Treat** with ninhydrin. Two intense spots appeared and were attributed to the alcs. derived from glycine and alanine. Two other spots apparently were due to the presence of reduced peptides that became resistant to hydrolysis.

=> d his

(FILE 'HOME' ENTERED AT 08:40:00 ON 19 DEC 2001)

FILE 'HCAPLUS' ENTERED AT 08:40:15 ON 19 DEC 2001
L1 626 S MONTGOMERY R?/AU
L2 9 S L1 AND DENTAL?
L3 4 S L2 AND ?MICROB?
SELECT RN L3 1-4

FILE 'REGISTRY' ENTERED AT 08:41:40 ON 19 DEC 2001
L4 70 S E1-70

FILE 'HCAPLUS' ENTERED AT 08:41:56 ON 19 DEC 2001
L5 4 S L3 AND L4

FILE 'REGISTRY' ENTERED AT 08:47:07 ON 19 DEC 2001
L6 1 S L4 AND "CHLORHEXIDINE DIACETATE"
L7 1 S L4 AND "CHLORHEXIDINE DIGLUCONATE"
L8 1 S L4 AND "CETYLPYRIDINIUM CHLORIDE"
L9 1 S L4 AND "DOMIPHEN BROMIDE"
L10 1 S L4 AND "BENZETHONIUM CHLORIDE"
E ALEXIDENE/CN
L11 6 S E4-10
E BENZALKONIUM CHLORIDE
E BENZALKONIUM/CN
L12 1 S E5
L13 1 S E4
L14 13 S L6-13

FILE 'HCAPLUS' ENTERED AT 08:58:39 ON 19 DEC 2001

FILE 'REGISTRY' ENTERED AT 08:58:50 ON 19 DEC 2001
SET SMARTSELECT ON
L15 SEL L14 1- CHEM : 196 TERMS
SET SMARTSELECT OFF

FILE 'HCAPLUS' ENTERED AT 08:58:53 ON 19 DEC 2001

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L16       14422 S L15
                E PROTEIN(L)THU/CT
                E PROTEIN/CT
                E PROTEINS/CT
                E E6+ALL/CT
L17       11167 S E3
L18        1125 S L17(L)THU/RL
L19           1 S L16 (L)L18
L20          17 S L16 AND L18
L21      228422 S CHEW OR BISCUIT OR TREAT OR RAWHIDE OR FEED
L22           1 S L21 AND L20
L23           0 S L22 NOT L5
L24         683 S L16(L)PROTEIN?
L25          14 S L24 AND L21
L26         912 S L16 AND PROTEIN?
L27          16 S L26 AND L21
L28          16 S L27 OR L25
L29          15 S L28 NOT L5

     FILE 'REGISTRY' ENTERED AT 09:08:52 ON 19 DEC 2001
L30           1 S ACETIC ACID/CN
                E ACETATE/CN
L31           1 S SODIUM ACETATE/CN
L32           1 S POTASSIUM ACETATE/CN
L33           2 S GLUCONIC ACID/CN
L34           1 S SODIUM GLUCONATE/CN
L35           1 S POTASSIUM GLUCONATE/CN
L36           1 S HYDROBROMIC ACID/CN
L37           1 S HYDROCHLORIC ACID/CN
L38           1 S SODIUM BROMIDE/CN
L39           1 S SODIUM CHLORIDE/CN
L40           1 S POTASSIUM CHLORIDE/CN
L41           1 S POTASSIUM BROMIDE/CN
L42          13 S L30-41

     FILE 'HCAPLUS' ENTERED AT 09:14:02 ON 19 DEC 2001
L43      249942 S L42
L44           1 S L43 AND L29
L45          14 S L29 NOT L44

=> s l26 and (animal or cat or dog or feline or canine)
        847652 ANIMAL
        374437 ANIMALS
       1142748 ANIMAL
                 (ANIMAL OR ANIMALS)
         39605 CAT
         31590 CATS
         62319 CAT
                 (CAT OR CATS)
         58164 DOG
        100615 DOGS
        134427 DOG
                 (DOG OR DOGS)
          4746 FELINE
            49 FELINES
          4771 FELINE
                 (FELINE OR FELINES)
         23458 CANINE
           385 CANINES
         23684 CANINE
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                (CANINE OR CANINES)
L46         129 L26 AND (ANIMAL OR CAT OR DOG OR FELINE OR CANINE)

=> d his

     (FILE 'HOME' ENTERED AT 08:40:00 ON 19 DEC 2001)

     FILE 'HCAPLUS' ENTERED AT 08:40:15 ON 19 DEC 2001
L1           626 S MONTGOMERY R?/AU
L2             9 S L1 AND DENTAL?
L3             4 S L2 AND ?MICROB?
                 SELECT RN L3 1-4

     FILE 'REGISTRY' ENTERED AT 08:41:40 ON 19 DEC 2001
L4            70 S E1-70

     FILE 'HCAPLUS' ENTERED AT 08:41:56 ON 19 DEC 2001
L5             4 S L3 AND L4

     FILE 'REGISTRY' ENTERED AT 08:47:07 ON 19 DEC 2001
L6             1 S L4 AND "CHLORHEXIDINE DIACETATE"
L7             1 S L4 AND "CHLORHEXIDINE DIGLUCONATE"
L8             1 S L4 AND "CETYLPYRIDINIUM CHLORIDE"
L9             1 S L4 AND "DOMIPHEN BROMIDE"
L10            1 S L4 AND "BENZETHONIUM CHLORIDE"
                 E ALEXIDENE/CN
L11            6 S E4-10
                 E BENZALKONIUM CHLORIDE
                 E BENZALKONIUM/CN
L12            1 S E5
L13            1 S E4
L14           13 S L6-13

     FILE 'HCAPLUS' ENTERED AT 08:58:39 ON 19 DEC 2001

     FILE 'REGISTRY' ENTERED AT 08:58:50 ON 19 DEC 2001
                 SET SMARTSELECT ON
L15          SEL L14 1- CHEM :     196 TERMS
                 SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 08:58:53 ON 19 DEC 2001
L16        14422 S L15
                 E PROTEIN(L)THU/CT
                 E PROTEIN/CT
                 E PROTEINS/CT
                 E E6+ALL/CT
L17        11167 S E3
L18         1125 S L17(L)THU/RL
L19            1 S L16 (L)L18
L20           17 S L16 AND L18
L21       228422 S CHEW OR BISCUIT OR TREAT OR RAWHIDE OR FEED
L22            1 S L21 AND L20
L23            0 S L22 NOT L5
L24          683 S L16(L)PROTEIN?
L25           14 S L24 AND L21
L26          912 S L16 AND PROTEIN?
L27           16 S L26 AND L21
L28           16 S L27 OR L25
L29           15 S L28 NOT L5
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     FILE 'REGISTRY' ENTERED AT 09:08:52 ON 19 DEC 2001
L30             1 S ACETIC ACID/CN
                  E ACETATE/CN
L31             1 S SODIUM ACETATE/CN
L32             1 S POTASSIUM ACETATE/CN
L33             2 S GLUCONIC ACID/CN
L34             1 S SODIUM GLUCONATE/CN
L35             1 S POTASSIUM GLUCONATE/CN
L36             1 S HYDROBROMIC ACID/CN
L37             1 S HYDROCHLORIC ACID/CN
L38             1 S SODIUM BROMIDE/CN
L39             1 S SODIUM CHLORIDE/CN
L40             1 S POTASSIUM CHLORIDE/CN
L41             1 S POTASSIUM BROMIDE/CN
L42            13 S L30-41

     FILE 'HCAPLUS' ENTERED AT 09:14:02 ON 19 DEC 2001
L43        249942 S L42
L44             1 S L43 AND L29
L45            14 S L29 NOT L44
L46           129 S L26 AND (ANIMAL OR CAT OR DOG OR FELINE OR CANINE)

=> s l46 and l43
L47            14 L46 AND L43

=> s l47 not (l5 or l28 or l44-45)
L48            13 L47 NOT (L5 OR L28 OR (L44 OR L45))

=> s l48 and (dental? or oral? or tooth? or teeth or plaque)
           33066 DENTAL?
          194724 ORAL?
           27128 TOOTH?
           13840 TEETH
              11 TEETHS
           13845 TEETH
                 (TEETH OR TEETHS)
           19322 PLAQUE
            9533 PLAQUES
           25305 PLAQUE
                 (PLAQUE OR PLAQUES)
L49             5 L48 AND (DENTAL? OR ORAL? OR TOOTH? OR TEETH OR PLAQUE)

=> d ti 1-5

L49  ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2001 ACS
TI   Oral GLP-1 formulations for antidiabetic and other therapeutic
     applications

L49  ANSWER 2 OF 5  HCAPLUS  COPYRIGHT 2001 ACS
TI   Simultaneous collection of DNA and non-nucleic acid analytes from
     oral fluids

L49  ANSWER 3 OF 5  HCAPLUS  COPYRIGHT 2001 ACS
TI   Antimicrobial prevention and treatment of human immunodeficiency virus and
     other infectious diseases

L49  ANSWER 4 OF 5  HCAPLUS  COPYRIGHT 2001 ACS
TI   Therapeutic treatment and prevention of infections with a bioactive
     material encapsulated within a biodegradable-biocompatible polymeric
     matrix
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L49 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2001 ACS
TI Complex preparations containing betaine

US 093981560EP1

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Dossier: 09398156

Legal Date: 06-03-2002

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4	REM	2

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